INITIAL STUDY

ANDALUSIA PROJECT
MORGAN HILL, CALIFORNIA

PREPARED FOR
CITY OF MORGAN HILL
DEVELOPMENT SERVICES DEPARTMENT
17575 PEAK AVENUE
MORGAN HILL, CA 95037

SEPTEMBER 2018

Revised November 2018

PREPARED BY

RANEY PLANNING & MANAGEMENT, INC.
1501 Sports Drive, Suite A, Sacramento, CA 95834

TABLE OF CONTENTS

SECTION 1. PROJECT INFORMATION 1

SECTION 2. PROJECT DESCRIPTION 1

SECTION 3. SOURCES 11

SECTION 4. EVALUATION OF ENVIRONMENTAL IMPACTS 13

I. AESTHETICS. 16
II. AGRICULTURE AND FOREST RESOURCES. 20
III. AIR QUALITY. 22
IV. BIOLOGICAL RESOURCES. 31
V. CULTURAL RESOURCES. 37
VI. GEOLOGY AND SOILS. 40
VII. GREENHOUSE GAS EMISSIONS. 43
VIII. HAZARDS AND HAZARDOUS MATERIALS. 45
IX. HYDROLOGY AND WATER QUALITY. 48
X. LAND USE AND PLANNING. 55
XI. MINERAL RESOURCES. 56
XII. NOISE. 57
XIII. POPULATION AND HOUSING. 65
XIV. PUBLIC SERVICES. 66
XV. RECREATION. 68
XVI. TRANSPORTATION/CIRCULATION. 69
XVII. TRIBAL CULTURAL RESOURCES. 75
XVIII. UTILITIES AND SERVICE SYSTEMS. 76
XIX. MANDATORY FINDINGS OF SIGNIFICANCE. 80

FIGURES

Figure 1: Regional Project Location 2
Figure 2: Project Vicinity Map 3
Figure 3: Site Development Plan 5
Figure 4: Tentative Parcel Map 6
Figure 5: Front Elevation: Spanish Farmhouse Style 7
Figure 6: Front Elevation: Mediterranean Revival Style 8
Figure 7: Preliminary Grading Plan 9
Figure 8: Existing View of Site Looking North from East Dunne Avenue 18
Figure 9: Preliminary Stormwater Management Plan 51

TABLES

Table 1: Proposed Unit Mix 4
Table 2: BAAQMD Thresholds of Significance 23
Table 3: Maximum Construction Emissions (lbs/day) 24
Table 4: Unmitigated Maximum Operational Emissions 25

Table 5: Proposed BMP Sizing Calculations 50
Table 6: Effects of Vibration on People and Buildings 60
Table 7: Vibration Levels for Various Construction Equipment 61
Table 8: Trip Generation Estimates 70
Table 9: Cumulative and Cumulative Plus Project Conditions: Access Alternative #1 Intersection LOS 72
Table 10: Cumulative and Cumulative Plus Project Conditions: Access Alternatives #2 and #3 Intersection LOS 73

APPENDIX

CalEEMod Modeling Results

SECTION 1. PROJECT INFORMATION

1.1	**Project Title:**	Andalusia
1.2	**Lead Agency Contact:**	Terry Linder Senior Planner Morgan Hill, CA 17575 Peak Avenue Morgan Hill, CA 95037
1.3	**Project Location:**	North of East Dunne Avenue, South of Rosemary Circle Morgan Hill, CA APN 726-02-007
1.4	**Project Applicant:**	Diana Dunne Investors, LLC 385 Woodview Avenue Morgan Hill, CA 95037 (408) 779-5900
1.5	**Existing Zoning:**	Residential Attached Medium (RAM)
1.6	**Existing General Plan Designation:**	Residential Attached Medium Density 16 to 24 du/ac (RAM)
1.7	**Required Approvals from Other Public Agencies:**	None

SECTION 2. PROJECT DESCRIPTION

2.1 Project Location and Setting

The Andalusia Project (proposed project) site consists of approximately 3.48 acres located directly north of an existing childcare facility (Morgan Hill KinderCare) at 605 East Dunne Avenue in the City of Morgan Hill, California (see Figure 1 and Figure 2). The site is identified by Assessor's Parcel Number (APN) 726-02-007. Currently, the project site is vacant and regularly disked. A narrow dirt footpath extends diagonally from the southeast corner of the site to the northeast corner of the site. In addition, a small number of remnant orchard trees are scattered within the southern portion of the site.

The project site is bound by the Morgan Hill KinderCare facility to the south, a single-family residential subdivision and an associated public park to the north, and vacant land to the east and west. Additional vacant land and a commercial development consisting of a Starbucks and a Walgreens store are located further east of the site, along Walnut Grove Drive.

Figure 1
Regional Project Location

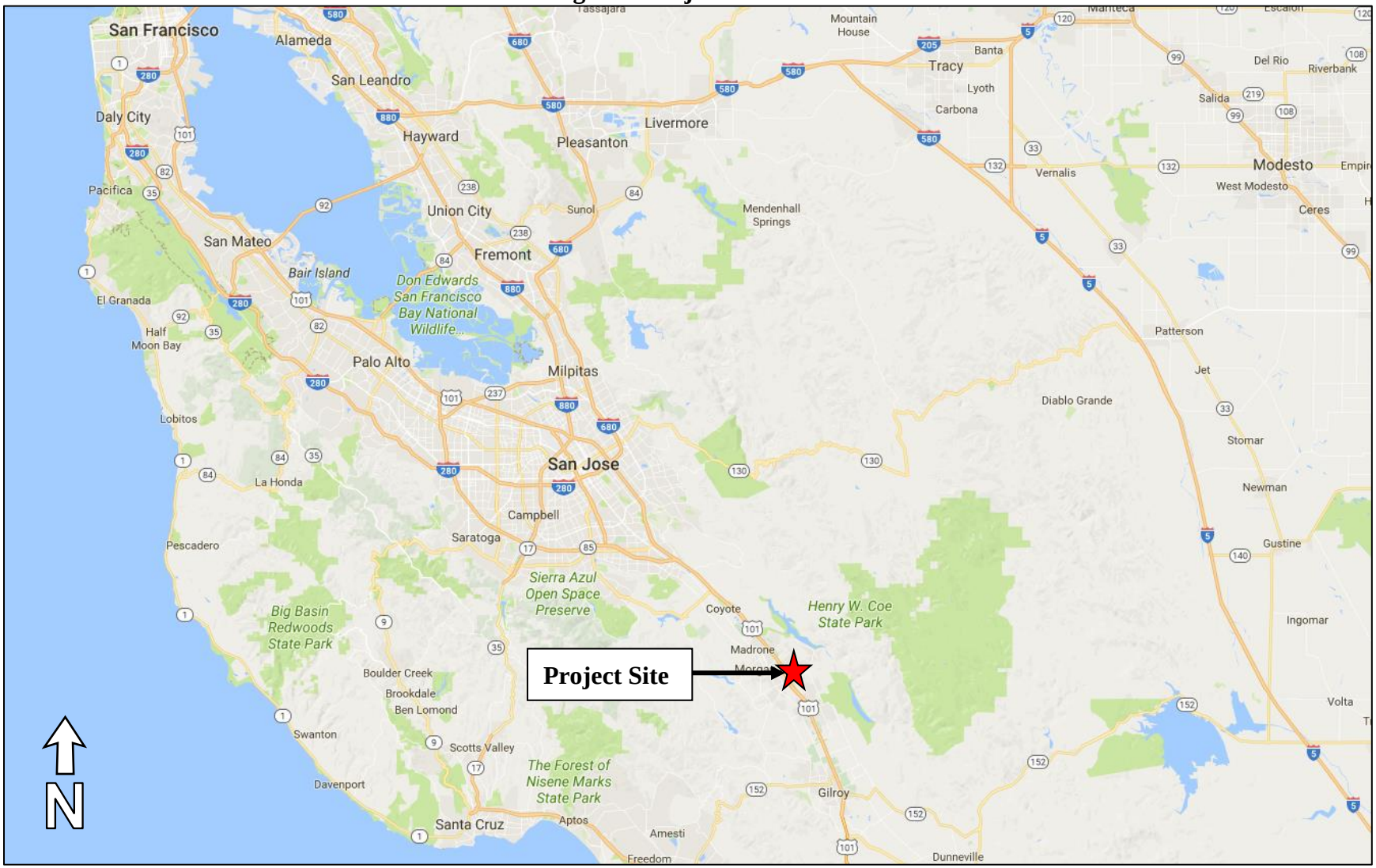


Figure 2
Project Vicinity Map

It should be noted that although the land immediately to the east and west of the project site is currently vacant, a single-family residential development project has been approved for the adjacent site to the west (East Dunne-Kyono [Las Colinas] Project).

2.2 Project Components

The proposed project would include subdivision of the site into three parcels, and construction of ~~single-family~~ residences and associated improvements (see Figure 3 and Figure 4).

The proposed residences would consist of 46 ~~single-family, attached townhomes~~***multi-family condos*** ranging from 1,428 square feet (sf) to 1,835 sf with between two and four bedrooms. The 46 units would be clustered into groups of three to five with individual entries provided for each unit. Table 1 below provides a summary of the proposed unit mix.

Table 1
Proposed Unit Mix

Number of Bedrooms	Living Space (sf)	Total Number of Units
2	1426	22
3	1656	7
4	1815	7
4	1725	6
4	1835	4

Notes:
- ~~Two~~***Four*** of the two-bedroom units would be priced below market rate.
- Four of the four-bedroom units would be American Disabilities Act (ADA)-compliant.

The buildings comprising each unit cluster would be three stories and would be constructed with Spanish Farmhouse and Mediterranean Revival architectural styles (see Figure 5 and Figure 6). Per Section 18.74.050 of the City's Municipal Code, landscaping would be provided throughout the site in accordance with the City's Standard Details for Construction. A 2,830-sf landscaped plaza and tot lot would be provided near the center of the site, to be used by future project residents. A 970-sf gathering area and a second tot lot would be located at the northwestern portion of the site. Lastly, a 240-sf gathering area would be provided along St. Anthony Drive within the western portion of the site.

The residential lots would be organized around an internal circulation system consisting of both public roadways and private streets. St. Anthony Drive and Las Colinas Drive, which are planned for the approved East Dunne-Kyono (Las Colinas) project located west of the project site, would be extended eastward through the site (see Figure 7). Of the two internal public roadways, St. Anthony Drive would be 40 feet wide and Los Castanos Drive (in order to add protection to KinderCare) would be 36 feet wide. A new 32-foot-wide roadway (Andalusia Drive) would extend northward along the eastern site boundary, providing a link between the new extensions of St. Anthony Drive and Las Colinas Drive. A detached pedestrian walkway would be provided on the west side of the roadway; the east side of the roadway would be improved as part of future development of the neighboring vacant parcel.

Figure 3
Site Development Plan

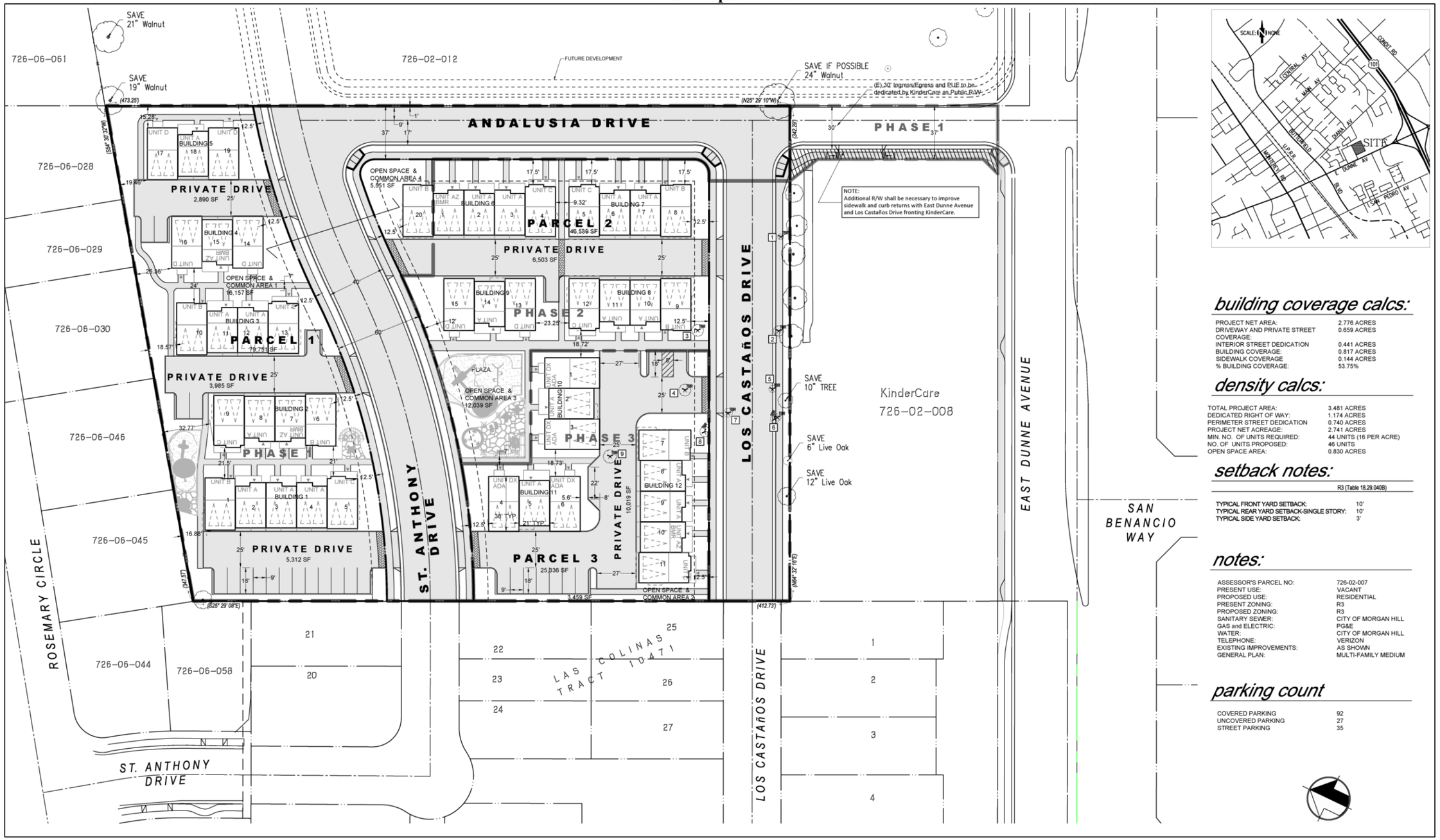


Figure 4
Tentative Parcel Map

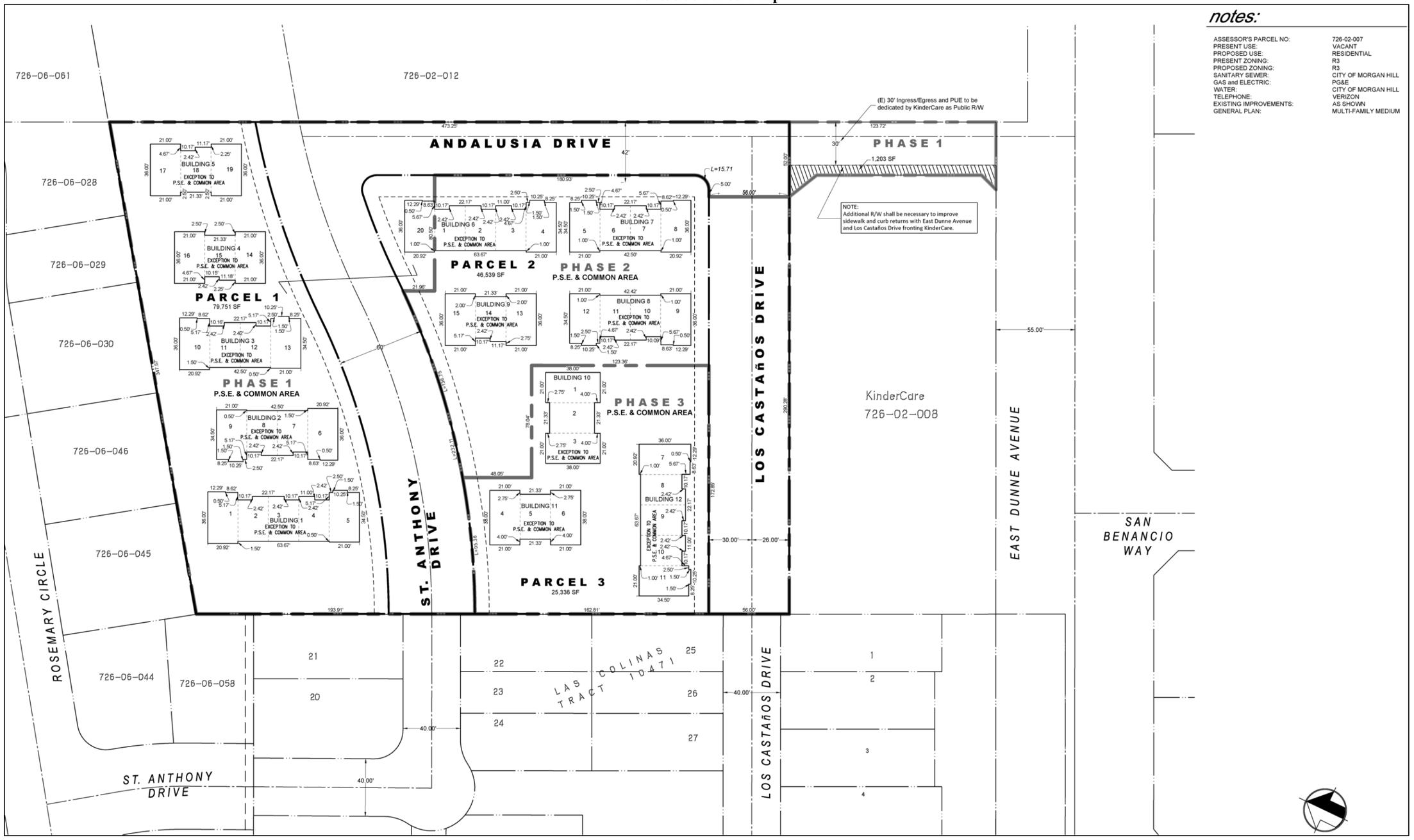
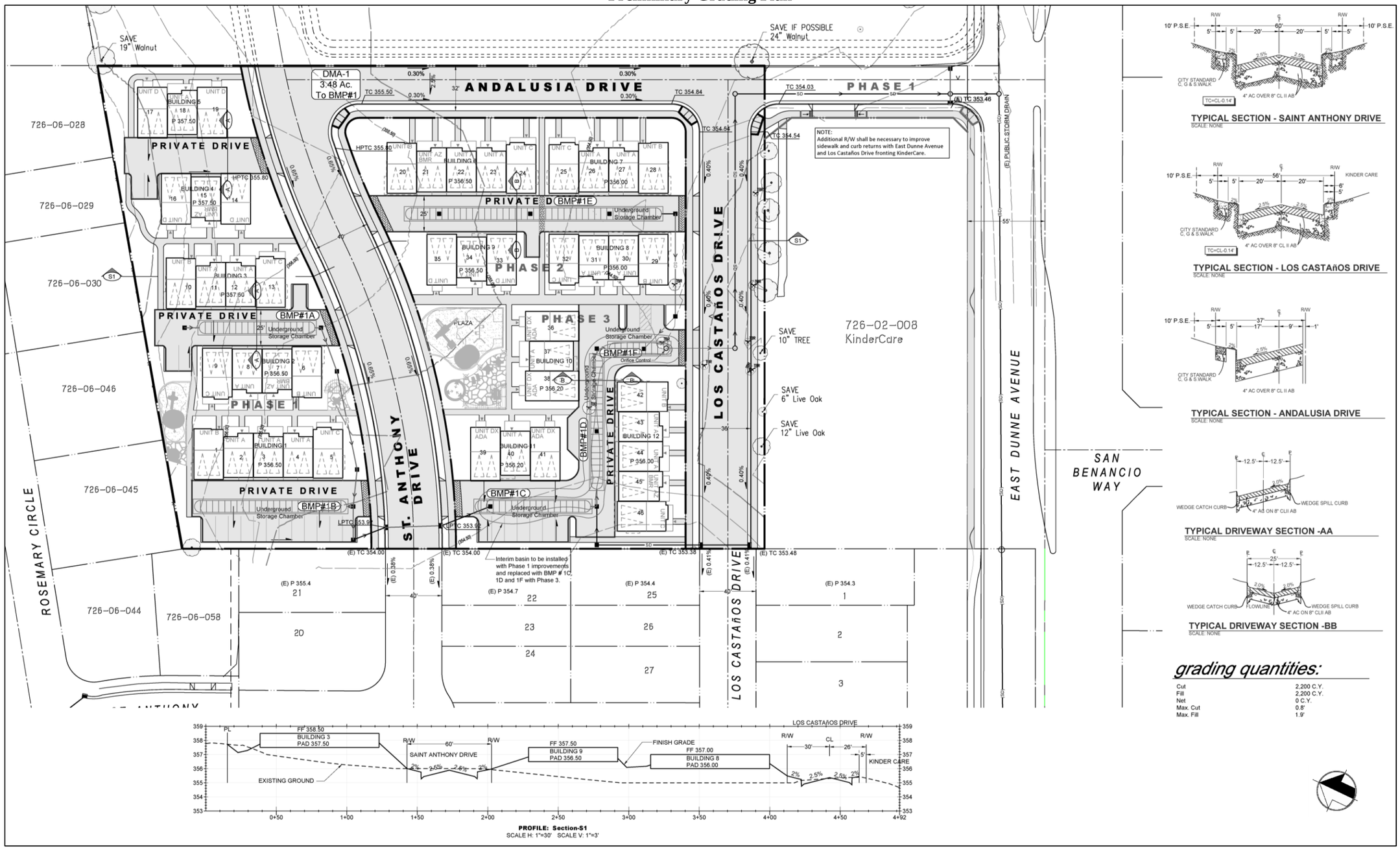


Figure 5
Front Elevation: Spanish Farmhouse Style

Figure 6
Front Elevation: Mediterranean Revival Style

Figure 7
Preliminary Grading Plan



Andalusia Drive would continue through the existing 30-foot right-of-way (ROW) located east of the Morgan Hill KinderCare facility. As part of the project, the 30-foot ROW would be improved as agreed upon with the City's Public Works Department at the time of final map and final improvement drawings to the City. With completion of the aforementioned improvements, primary access to the site would be provided from East Dunne Avenue by way of Andalusia Drive, with secondary access provided through the East Dunne-Kyono (Las Colinas) project site by way of St. Anthony Drive and Las Colinas Drive.

New private streets extending from St. Anthony Drive and Las Colinas Drive would provide vehicular access to two-car garages at the rear of each residential unit. Each cluster of units would front private courtyards connected by a series of pedestrian walkways throughout the project site. A total of 35 street parking spaces would be provided along both sides of St. Anthony Drive and Las Colinas Drive. In addition, 27 uncovered parking stalls would be located along private streets throughout the site. Accounting for 92 parking spaces distributed between the proposed two-car garages, the proposed project would include a total of 154 vehicle parking spaces.

Water and sewer service for the proposed development would be provided by the City through connections to existing infrastructure located in the site vicinity. Stormwater would be collected by a series of drain inlets along the internal circulation system and transported, by way of underground storm drains, to six underground pipe manifold storage systems located underneath the on-site private streets. The pipe manifold storage systems would treat and detain all on-site runoff prior to discharging to the City's existing stormwater drain located in East Dunne Avenue.

Requested/Required Entitlements

The proposed project would require the City's approval of the following entitlements:

- Adoption of the Initial Study/Mitigated Negative Declaration (IS/MND) and Mitigation Monitoring and Reporting Program;
- Approval of a ~~Vesting~~ Tentative Parcel Map ~~(VTM)~~ for APN 726-02-007 to subdivide the 3.48-acre project site into three parcels for the development of 46 ~~single-family, attached residences~~***multi-family condos***; and
- Approval of a Development Agreement.

Subsequent to the approval of the above entitlements, the applicant would be required to obtain a Design Review Permit for approval of a site plan, building elevations, and landscape plans.

2.3 Surrounding Land Uses

The immediate existing surrounding land uses and developments are as follows:

North - Single-family residences.
West - Vacant (planned for single-family residential site of East Dunne-Kyono [Las Colinas] Project).
East - Vacant.
South - Morgan Hill KinderCare.

SECTION 3. SOURCES

The following documents are referenced information sources utilized by this analysis:

1. Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed July 2018.

2. Association of Bay Area Governments. *Resilience Program.* Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed July 2018.

3. Bay Area Air Quality Management District. *Air Quality Standards and Attainment Status*. Available at: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed July 2018.

4. Bay Area Air Quality Management District. *California Environmental Quality Act, Air Quality Guidelines.* May 2017.

5. California Air Pollution Control Officer's Association (CAPCOA). *California Emissions Estimator Model, User's Guide, Version 2016.3.2.* November 2017.

6. California Department of Conservation. *Santa Clara County Important Farmland Map 2014.* Published October 2016.

7. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005)*. Available at: http://www.calrecycle.ca.gov/SWFacilities/Directory/27-AA-0005/Detail/. Accessed July 2018.

8. California Environmental Protection Agency, California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective.* April 2005.

9. California Historical Resources Information System. *Record search results for the proposed Andalusia project.* August 13, 2018.

10. City of Morgan Hill Public Works Department. *Schedule of Development Impact Fees.* January 15, 2018.

11. City of Morgan Hill. *2010 Urban Water Management Plan* [pg. 5-23 to 5-24]. 2010.

12. City of Morgan Hill. *2035 General Plan Draft EIR*. January, 2016.

13. City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.

14. City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.

15. City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.

16. City of Morgan Hill. *Housing Element.* Adopted February 18, 2015.

17. City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* Adopted July 2016.

18. City of Morgan Hill. *Municipal Code.* Available at: http://www.morgan-hill.ca.gov/655/Municipal-Code. Accessed July 2018.

19. City of Morgan Hill. *Revised Regional Stormwater Management Plan*. February 22, 2010.

20. County of Santa Clara, City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, Santa Clara Valley Transportation Authority. *Final Santa Clara Valley Habitat Plan, Santa Clara County, California*. January 29, 2013.

21. Department of Conservation. *State of California, Special Studies Zones, Mt. Madonna Quadrangle, Revised Official Map.* Effective January 1, 1976.

22. Fehr & Peers. *Kyono Residential Development, Draft Focused Transportation Impact Analysis.* February 2018.

23. Geologica, Inc. *Report, Phase I Environmental Site Assessment, Vacant Parcel APN 726-02-007, Morgan Hill, California.* November 3, 2017.

24. Geologica, Inc. *Report, Soil Quality Investigation, Proposed Development Property, Vacant Parcel APN 762-02-007, East Dunne Avenue, Morgan Hill, CA.* December 5, 2017.

25. Natural Resources Conservation Service. *Calculated Coefficients of Linear Extensibility.* Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/office/ssr10/tr/?cid=nrcs144p2_074840. Accessed July 2018.

26. Salinas Valley Solid Waste Authority. *2016-17 Annual Report.* 2018.

27. Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

28. Santa Clara Valley Habitat Agency. Geobrowser. Available at: http://www.hcpmaps.com/habitat/. Accessed July 2018.

29. Santa Clara Valley Transportation Authority. *2015 Congestion Management Plan.* October 2015.

30. Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit*.* Available at: https://www.valleywater.org/project-updates/dam-reservoir-projects/anderson-dam-seismic-retrofit. Accessed July 2018.

31. South County Regional Wastewater Authority. *Biennial Budget Transmittal – FY 14 & FY 15*. April 3, 2013.

SECTION 4. EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 Background and Introduction

The mitigation measures prescribed for environmental effects described in this Initial Study/Mitigated Negative Declaration (IS/MND) would be implemented in conjunction with the project, as required by CEQA. The mitigation measures would be incorporated into the project through project conditions of approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program for the project in conjunction with approval of the project.

July 2016, the City of Morgan Hill adopted the 2035 General Plan,[1] as well as an associated Environmental Impact Report (EIR) for the updated General Plan.[2] The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq*.). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan. Per the General Plan, the proposed project site is designated Residential Attached Medium Density (16 to 24 dwelling units/acre). Accounting for 0.74-acre of proposed perimeter street dedications, the net developable area of the site is 2.74 acres. Development of the project site with 46 ~~single-family~~ units would result in a density of 16.79 dwelling units/acre. Thus, the proposed project would be consistent with the General Plan.

Per Section 15152 of the CEQA Guidelines, a project which is consistent with the General Plan and zoning of the City may tier from the analysis contained in the General Plan EIR, incorporating by reference the general discussions from the broader EIR. Given that the proposed project would be consistent with the site's current General Plan land use designation of Residential Attached Medium Density, the environmental analysis contained in this IS/MND tiers, where applicable, from the General Plan EIR in accordance with CEQA Guidelines Section 15152.

The timing, type, and amount of residential growth in Morgan Hill is ultimately controlled by the Residential Development Control System (RDCS), which was adopted for the purpose of managing growth in Morgan Hill. The RDCS generally limits development allotments to 215 residential units per year according to a point system based on a variety of factors, including provision of public services, site planning, and architectural design considerations. The Andalusia project site has been awarded 20 building allotments for the 2019/2020 period through the City's RDCS under file number RDCS2017-1112. The 26 additional allotments required for the proposed project would be received in the 2020/2021 competition period either through (a) competition for the City's remaining allotments or (b) consideration as an on-going project, which would allow for automatic receipt of the 26 building allotments.

1 City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.
2 City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* Adopted July 2016.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture and Forest Resources**	☐ **Air Quality**
✖ **Biological Resources**	☐ **Cultural Resources**	☐ **Geology and Soils**
☐ **Greenhouse Gas Emissions**	☐ **Hazards and Hazardous Materials**	☐ **Hydrology and Water Quality**
☐ **Land Use and Planning**	☐ **Mineral Resources**	✖ **Noise**
☐ **Population and Housing**	☐ **Public Services**	☐ **Recreation**
☐ **Transportation and Circulation**	☐ **Tribal Cultural Resources**	☐ **Utilities and Service Systems**
☐ **Mandatory Findings of Significance**		

DETERMINATION

On the basis of this initial study:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✖ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Terry Linder, Senior Planner	City of Morgan Hill
Printed Name	For

ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended, as appropriate, as part of the proposed project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	✖	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	✖
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	✖	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	✖	☐

a. The Morgan Hill General Plan does not designate official scenic view corridors or vistas. However, according to the General Plan, the hillsides that surround the City to the east and west are considered scenic. The project site is located in a suburban neighborhood surrounded by existing development and is not located on a hillside or in the vicinity of a hillside. While distant views of eastern hills can be seen through the project site from public viewpoints, including East Dunne Avenue, most views of the hills are obscured by the Morgan Hill KinderCare facility located south of the project site, as well as intervening development and vegetation located beyond the project site to the north.[3] Based upon such considerations, and the fact that the General Plan does not designate any official scenic vistas within the City of Morgan Hill, the project would have a ***less-than-significant*** impact to a scenic vista.

b. Scenic gateways to the City include Pacheco Pass, Hecker Pass, US 101 south of Gilroy, and the Coyote greenbelt area north of Morgan Hill. According to the California Department of Transportation (Caltrans) map of Santa Clara County prepared for the Scenic Highway Mapping System, officially designated State or County scenic highways do not occur in the project vicinity. Because the proposed project is not located in the vicinity of any State scenic highway or scenic gateway identified by the City, the proposed project would not damage any scenic resources within a State scenic highway. Therefore, ***no impact*** related to damaging scenic resources within a State scenic highway would occur.

[3] It is important to distinguish between public and private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers, including views from private residences. Public views are experienced by the collective public. These include views of significant landscape features and along scenic roads. California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Therefore, it is appropriate to focus the aesthetic impact analysis on potential impacts to public views.

c. Currently, the proposed project site is vacant and undeveloped. A small number of orchard trees are scattered near the southern portion of the site. An existing single-family residential subdivision is located north of the site, and the site is bound on the south by the Morgan Hill KinderCare facility. The site is bound to the east by a vacant lot zoned for residential uses. As noted previously, future single-family residential development has been approved by the City for the vacant parcels west of the project site.

Directly south of the project site, existing views of the site from East Dunne Avenue are blocked by the Morgan Hill KinderCare facility and associated mature landscaping (see Figure 8). Limited views of the site are available from East Dunne Avenue looking across the vacant properties east and west of the site; however, such views are partially obscured by intervening vegetation. In addition, because both adjacent properties are currently planned for development with residential uses, future views of the site from East Dunne Avenue will likely be further screened.

Due to the vacant nature of the project site, development of the site with ~~single~~***multi***-family residences would change the character of the site from an undeveloped lot to a suburban residential neighborhood. The upper floors of the proposed three-story buildings would likely be visible to motorists, pedestrians, and bicyclists on East Dunne Avenue looking north at the site across the Morgan Hill KinderCare facility. Development of the site with ~~single-family residences~~***residential uses***, however, would be consistent with the existing residential development to the north and the future residential uses planned to the east and west of the site. In addition, while the upper floors of the proposed three-story buildings may be visible, much of the site would continue to be screened from view by tall vegetation along the northern boundary of the Morgan Hill KinderCare property.

The project is also subject to design review in accordance with Morgan Hill Municipal Code Section ~~18.74.030~~***18.108.040***, which would ensure that the proposed project is consistent with applicable design standards and guidelines in the City's Architectural Review Handbook for ~~Single~~***Multi***-Family Residential development. The Handbook is intended to encourage sensitive site planning and well-designed neighborhoods. Furthermore, the project would be consistent with the project site's existing General Plan land use and zoning designations. Thus, the City has previously anticipated changes to the visual character associated with residential development of the project site, and such changes have been analyzed in the General Plan EIR. The City's General Plan EIR concluded that buildout of the General Plan, including the project site, would result in a less-than-significant impact related to visual character and quality.

Because the project would be consistent with the existing surrounding visual character and quality, would require a separate design review, and would be consistent with the site's current land use and zoning designations, a ***less-than significant*** impact would occur related to degradation of the existing visual character of the site and its surroundings.

Figure 8
Existing View of Site Looking North from East Dunne Avenue

d. The proposed project site does not contain any existing sources of light or glare. As such, development of the proposed project would increase the amount of light including, but not limited to, headlights on cars using the on-site driveways, exterior light fixtures, and interior light spilling through windows. However, the existing residential development north of the site and the Morgan Hill KinderCare facility south of the site both currently generate light and glare in the area.

In addition, new sources of lighting would be required to comply with the standards set forth in Section F of the City's Architectural Review Handbook, which includes such requirements as cut-off lenses to direct light downward. Compliance with such would help to ensure that the light and glare created by the proposed project would be consistent with the levels of light and glare currently emitted in the surrounding developed environment. Therefore, the proposed project would not introduce new sources of substantial light or glare to the site which would adversely affect day or nighttime views in the area, and a ***less-than-significant*** impact would occur.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	✖
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	☐	✖

a,e. Per a Phase I Environmental Site Assessment (ESA) prepared for the proposed project, the proposed project site was planted with an active orchard from approximately 1939 to the mid-1960s, at which time the on-site orchard was replaced with a cultivated field.[4] While the project site historically contained an orchard, the site has not been used recently for agricultural production and is designated as "Urban and Built-Up Land" on the Santa Clara County Important Farmland map.[5] Furthermore, the site is not zoned or designated in the General Plan for agriculture uses. Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, ***no impact*** would occur as a result of the proposed project.

b. The proposed project site is not under a Williamson Act contract and is not designated or zoned for agricultural uses. Therefore, buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and ***no impact*** would occur.

c,d. The project site is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the

[4] Geologica, Inc. *Report, Phase I Environmental Site Assessment, Vacant Parcel APN 726-02-007, Morgan Hill, California.* November 3, 2017.

[5] California Department of Conservation. *Santa Clara County Important Farmland Map 2014.* Published October 2016.

proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY. *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✖	☐
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	✖	☐
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✖	☐
d.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e.	Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

a-c. The City of Morgan Hill is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10}

standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_X), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr). The thresholds are listed in Table 2. Thus, by exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 2
BAAQMD Thresholds of Significance

	Construction	Operational	
Pollutant	**Average Daily Emissions (lbs/day)**	**Average Daily Emissions (lbs/day)**	**Maximum Annual Emissions (tons/year)**
ROG	54	54	10
NO_X	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10
Source: BAAQMD, CEQA Guidelines, May 2017.			

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumed the following:

- Construction would commence in July of 2019;
- Construction would occur over an approximately 13-month period;
- Approximately 3.58 acres would be disturbed during grading activities, including 0.10-acre of off-site roadway improvements at the existing roadway segment east of the Morgan Hill KinderCare facility.
- An average daily trip rate of 9.52 trips per unit was assumed;
- The project would exceed the most recent 2016 Title 24 Standards by 25 percent; and
- The project would include low-flow fixtures and would use water-efficient irrigation systems.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well. All CalEEMod results are included in the appendix to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum construction criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance.

Table 3
Maximum Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	7.18	54	**NO**
NO_X	45.63	54	**NO**
PM_{10} (exhaust)	2.39	82	**NO**
PM_{10} (fugitive)	18.21	None	**N/A**
$PM_{2.5}$ (exhaust)	2.20	54	**NO**
$PM_{2.5}$ (fugitive)	9.97	None	**N/A**

Source: CalEEMod, July 2018 (see appendix).

Although thresholds of significance for mass emissions of fugitive dust PM_{10} and $PM_{2.5}$ have not been identified by the City of Morgan Hill or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
2. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
3. All vehicle speeds on unpaved roads shall be limited to 15 mph.
4. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

7. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's Basic Construction Mitigation Measures listed above for the proposed project's construction activities, would help to further minimize construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, the proposed project would not be considered to result in a significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 4. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. As such, the proposed project would not result in a significant air quality impact during operations.

Table 4
Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	3.04	0.52	54	10	**NO**
NO_X	3.92	0.62	54	10	**NO**
PM_{10} (exhaust)	0.11	0.01	82	15	**NO**
PM_{10} (fugitive)	2.15	0.38	None	None	**N/A**
$PM_{2.5}$ (exhaust)	0.11	0.01	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.58	0.10	None	None	**N/A**

Source: CalEEMod, July 2018 (see appendix).

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 2 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 2, the proposed project's emissions

would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, impacts would be considered ***less than significant***.

d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project would involve construction of ~~single-family residences~~***residential uses***, which would be considered sensitive receptors. The nearest existing sensitive receptor to the project site would be the Morgan Hill KinderCare facility located adjacent to the site's eastern boundary.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and Toxic Air Contaminants (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

As discussed in Section XVI, Transportation and Circulation, of this Initial Study, the proposed project would not conflict with the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP).[6] Additionally, traffic counts for the area completed as part of a Traffic Impact Analysis prepared for the East Dunne-Kyono (Las Colinas) Project, showed that all of the intersections in the project area experience traffic levels far below 44,000 vehicles during AM and PM peak hour periods,[7] and traffic associated with the proposed 46-unit development would not increase traffic volumes at an affected intersection to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

[6] Santa Clara Valley Transportation Authority. *2015 Congestion Management Plan.* October 2015.
[7] Fehr & Peers. *Kyono Residential Development, Draft Focused Transportation Impact Analysis.* February 2018.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations during operations. However, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, as noted above, construction would occur over an approximately 13-month period. Mass grading of the project site, when emissions would be most intensive, would occur over the period of approximately nine days. The exposure period typically analyzed in health risk assessments is 30 years or greater, which is substantially longer than the 13-month construction period associated with the proposed project.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. In addition, the project applicant would be required to prepare, and include on all site development and grading plans, a management plan detailing strategies for control of noise, dust and vibration, and storage of hazardous materials during construction of the project. Per Section 18.48.005 of the City's Municipal Code, the management plan must include all applicable BAAQMD rules and regulations, as well as the City's standard conditions for construction activity, listed below:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The City of Morgan Hill Community Development Department would ensure that the conditions listed above would be noted on project construction drawings prior to issuance of a building permit or approval of improvement plans.

During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. In addition, Chapter 8.28 of the City's Municipal Code prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Construction activities may not occur on Sundays or federal holidays. The Morgan Hill KinderCare facility is open between 6:15 AM and 6:15 PM and is closed Saturday and Sunday. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Equipment operating in close proximity to the Morgan Hill KinderCare facility would occur over an even smaller amount of time, as the facility is located adjacent to the southern site boundary. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time.

Due to the varying distances from working construction areas and equipment usage to any one nearby sensitive receptor, any one nearby sensitive receptor would be exposed to varying concentrations of DPM emissions throughout the construction period. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere. Thus, emissions at the project site would be substantially dispersed at the nearest sensitive receptor.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO or TACs from construction or operation. Therefore, the proposed project would result in a ***less-than-significant*** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

e. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantification of significant odor impacts is relatively difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The

proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Construction activities often include diesel-fueled equipment and heavy-duty diesel trucks, which can create odors associated with diesel fumes, which could be found to be objectionable. However, as discussed above, construction activities would be temporary, and operation of construction equipment would be regulated and intermittent. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Accordingly, substantial objectionable odors would not occur during construction activities or affect a substantial number of people.

It should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors, and a ***less-than-significant*** impact related to objectionable odors would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	✖	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	✖	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	✖	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	✖
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	✖	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	✖	☐	☐

a,f. The proposed project site is located within the boundaries of the Santa Clara Valley Habitat Plan (SCVHP). The SCVHP was developed through a partnership between Santa Clara County, the cities of San José, Morgan Hill, and Gilroy, the Santa Clara Valley Water District (SCVWD), the Santa Clara VTA, the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW). The SCVHP is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth in approximately 500,000 acres of southern Santa Clara County. The SCVHP provides take authorization for 18 listed and non-listed species (i.e. covered species). In addition, the SCVHP includes conservation measures to protect the species covered by the SCVHP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area.

Per the SCVHP, the proposed project site is designated as a "Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed" land cover type. Fallow fields are defined in the

SCVHP to include ruderal areas that have been fallow for several growing seasons and are dominated by weeds such as black mustard or thistles.[8] Covered species expected to be found in the land cover type are tricolored blackbird and western burrowing owl, which forage in grain crops and pastures. Tricolored blackbird and western burrowing owls may also breed in agricultural settings. San Joaquin kit fox may move through the Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed land cover type if such land cover occurs near suitable grassland areas. California tiger salamander, California red-legged frog, and western pond turtle move through croplands to reach suitable breeding and aestivation habitat. Bay checkerspot butterfly migrate through such habitats between patches of serpentine grassland. However, per the Santa Clara Valley Habitat Agency Geobrowser program, the proposed project site is not located within a designated Plant or Wildlife Survey Area for any covered species.[9]

Only the western burrowing owl has the potential of inhabiting the proposed project site, according to habitat requirements listed in Appendix D of the SCVHP. Burrowing owls do not require a specific vegetation cover or soil type and typically use vacated burrows dug by small mammals as nesting habitat; however, burrowing owls are also known to use artificial burrows including pipes, culverts, and piles of concrete pieces in urban areas. While the project site is not located within a Burrowing Owl Fee Zone, potential impacts to burrowing owls could occur as a result of the proposed development.

Furthermore, migratory birds have the potential to nest within the small number of trees located on the project site. Birds and their nests are protected under the California Fish and Game Code (Sections 3503, 3503.5, 3513), and the Migratory Bird Treaty Act (MBTA). The proposed project would include removal of trees during construction, and, thus, could result in impacts to nesting raptors and migratory birds, potentially occurring in the trees.

Should the project not comply with the mitigation requirements of the SCVHP for burrowing owls or impact nesting migratory birds during construction, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. In addition, the project could conflict with the SCVHP. Thus, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

IV-1. *A pre-construction survey shall be conducted by a qualified Burrowing Owl biologist no more than 30 days prior to initiation of any ground disturbing (construction) activity to assure take avoidance of burrowing owls. The*

[8] County of Santa Clara, City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, Santa Clara Valley Transportation Authority. *Final Santa Clara Valley Habitat Plan, Santa Clara County, California* [pg. 3-97]. January 29, 2013.

[9] Santa Clara Valley Habitat Agency. Geobrowser. Available at: http://www.hcpmaps.com/habitat/. Accessed July 2018.

survey shall consist of a habitat assessment, burrow survey, owl survey, and completion of a written report. The written report shall be submitted to the Community Development Department. If owls are not determined to be present on-site, further mitigation is not required. If owls are observed during the preconstruction survey, no impacts to the owls or their habitat will be allowed during the nesting season (February 1 to August 31).

IV-2. *Should burrowing owls be found on the site during the breeding season (February 1 through August 31), exclusion zones, with a 250-foot radius from occupied burrows, shall be established. All development-related activities shall occur outside of the exclusion area until the young have fledged. Establishment of the exclusion area shall be determined by a qualified biologist to the satisfaction of the Community Development Department.*

IV-3. *If pre-construction surveys are conducted during the non-breeding season (September 1 through January 31) and burrowing owls are observed on the site, the project proponent shall establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of the 250-foot buffer shall be allowed. Construction activities within the non-disturbance buffer shall be allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites:*

- *A qualified biologist monitors the owls for at least three days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).*
- *The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.*
- *If any change in owl foraging behavior occurs as a result of construction activities, such activities shall cease within the 250-foot buffer.*
- *If the owls are gone for at least one week, the project proponent may request approval from the Habitat Agency that a qualified biologist excavate usable burrows to prevent owls from reoccupying the site. After all usable burrows are excavated, the buffer zone shall be removed and construction may continue. Monitoring shall continue as described above for the non-breeding season as long as the burrow remains active.*

Passive relocation of owls shall not be permitted unless the positive growth trend described in Section 5.4.6 of the SCVHP is achieved and all passive relocation measures identified in the SCVHP are implemented. The project applicant may choose to obtain an exception that would allow for passive relocation, in which case an application shall be submitted to the Habitat

Agency along with a passive relocation plan in accordance with Section 6.6.1, Condition 15, Exceptions to Passive Relocation Prohibition, of the SCVHP. The Habitat Agency shall have the final authority to grant or deny the requested exception.

IV-4. *No later than submittal of the first construction or grading permit for the proposed project the owner or designee shall pay the Santa Clara Valley Habitat Plan per-acre fee in effect for the appropriate fee zone of the project site, as determined by the Santa Clara Valley Habitat Agency, in compliance with Section 18.69.150 of the Morgan Hill Municipal Code.*

IV-5 *If construction is proposed during breeding season (February 1 to August 31), a pre-construction nesting survey for raptors and other protected migratory birds shall be conducted by a qualified biologist and submitted to the City of Morgan Hill Community Development Department for review no more than 14 days prior to the start of construction. Pre-construction surveys during the non-breeding season (September 1 to January 31) are not necessary for birds, including roosting raptors, as they are expected to abandon their roosts during construction. If these species are deemed absent from the area, construction may occur within 14 days following the survey during the early nesting season (February to May) and within 30 days following the survey during the late nesting season (June to August).*

If nesting raptors are detected on or adjacent to the site during the survey, a suitable construction-free buffer shall be established around all active nests. The precise dimension of the buffer (250-foot minimum for certain raptors) shall be determined by the qualified biologist at that time and may vary depending on location, topography, type of construction activity, and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

b,c. The proposed project site consists primarily of disturbed ruderal vegetation and is bordered by existing development to the north and south. Although the site contains vegetation and some mature trees, water features do not exist on the project site or in the vicinity of the site. The site would, therefore, not be considered a riparian habitat, a wetland, or a sensitive natural community. Accordingly, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community, or on federally-protected wetlands, and a ***less-than-significant*** impact would occur.

d. The project site is located within a residential neighborhood. While vacant lands are located immediately to the west and east of the site, the broader project area is entirely surrounded by existing development. Thus, the project site and the adjoining vacant lands do not provide a continuous corridor for wildlife movement. As noted above, the project does not

contain streams or other waterways that could be used by migratory fish or as a wildlife corridor for other wildlife species. As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, ***no impact*** would occur.

e. Section 12.32.030 of the City of Morgan Hill's Municipal Code requires the approval of a tree removal permit before the removal of any Ordinance Sized Trees, defined as a non-indigenous tree with a circumference greater than 40 inches or any indigenous tree with circumference greater than 18 inches. Indigenous tree means any tree native to the Morgan Hill region, such as oaks (all types), Sycamore, California Bay, Madrone, or Alder.

Per a Tree Inventory & Pre-Construction Report prepared for the proposed project by Ray Morneau, the proposed project site contains a total of 14 existing trees.[10] In addition, the drip line of one tree located outside the site's eastern boundary overhangs the project site. Of the 15 total trees, 11 trees are protected as "Ordinance Sized Trees" per Chapter 12.32 of the City's Municipal Code. Eight of the 11 protected trees would require removal as part of the proposed project (Trees #1, 2, 3, 4, 5, 5b, 7, and 8). Removal of such trees would require replacement plantings at a 1:1 ratio, 15-gallon minimum size.

Three protected trees (Trees #6, 11, and 12) would be preserved on-site along the south side of proposed Los Castanos Drive, north of KinderCare. These protected trees would require preservation and/or protection measures.

Therefore, the proposed project could have a ***potentially significant*** impact related to conflicting with local policies or ordinances protecting biological resources, particularly related to Chapter 12.32 of the City's Municipal Code.

Mitigation Measure(s)
Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

IV-6. *The project applicant shall mitigate for the removal of any Ordinance Sized Trees, as defined in Section 12.32.020 of the City of Morgan Hill Municipal Code, by providing on-site replacement plantings at a 1:1 ratio with 15-gallon minimum size trees.*

For all Ordinance Sized Trees to be preserved as part of the project, the project applicant shall retain a certified arborist to prepare a tree protection plan, subject to review and approval by the Community Development Department. The plan shall demonstrate how any retained trees are to be protected during and after construction. The tree protection plan may include, but not be limited to, the following:

[10] Ray Morneau. *Certified Arborist's Tree Inventory & Pre-Construction Report*. August 29, 2018.

- *Locate structures, grade changes, etc. as far as feasible from the `dripline' area of the tree.*
- *Avoid root damage through grading, trenching, compaction, etc., at least within an area 1.5 times the `dripline' area of trees. Where root damage cannot be avoided, roots encountered (over one inch in diameter) should be exposed approximately 12 inches beyond the area to be disturbed (towards tree stem), by hand excavation, or with specialized hydraulic or pneumatic equipment, cut cleanly with hand pruners or power saw, and immediately back-filled with soil. Tearing, or otherwise disturbing the portion of the root(s) to remain, shall be avoided.*
- *A temporary fence shall be constructed as far from the tree stem (trunk) as possible, completely surrounding the tree, and six to eight feet in height. 'No parking or storage' signs shall be posted outside/on the fencing. Postings shall not be attached to the main stem of the tree.*
- *Vehicles, equipment, pedestrian traffic, building materials, debris storage, and/or disposal of toxic or other materials shall not be permitted inside of the fenced off area.*
- *The project applicant shall avoid pruning immediately before, during, or immediately after construction impact. Perform only that pruning which is unavoidable due to conflicts with proposed development. Aesthetic pruning should not be performed for at least one to two years following completion of construction.*
- *Trees that will be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities, with not more than six pounds of actual nitrogen per 1,000 square feet of accessible `drip line' area or beyond.*
- *The `rooting' area shall be mulched with an acidic, organic compost or mulch.*
- *The project applicant shall arrange for periodic (Biannual/Quarterly) inspection of tree's condition, and treatment of damaging conditions (insects, diseases, nutrient deficiencies, etc.) as such conditions occur, or as appropriate.*
- *Subject to the discretion of the Community Development Department, individual trees likely to suffer significant impacts may require specific, more extensive efforts and/or a more detailed specification than those contained within the above general guidelines.*

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	✖	
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	☐	✖	☐
c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	☐	☐	✖	☐
d. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	☐	✖	☐

a. The proposed project site does not contain any permanent structures. Furthermore, per a records search of the California Historic Resources Information System (CHRIS) performed by the North Central Information Center (NWIC) for cultural resource site records and survey reports within the proposed project area, the State Office of Historic Preservation Directory (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) does not list recorded buildings or structures in or adjacent to the project site.[11] Therefore, the proposed project would not cause any adverse change in the significance of a historical resource, and a ***less-than-significant*** impact would occur.

b-d. According to the CHRIS search, the site has not been subject to a previous cultural resource study and does not contain any recorded archaeological resources. In addition, based on the environmental setting of the site, the potential for unrecorded Native American resources to exist within the project site is relatively low. However, while unlikely, the possibility exists for previously unknown resources to be found on-site during grading and excavation associated with development of the proposed project. In the event that such resources are unearthed, the following City standard measures related to the protection of archaeological resources would be implemented:

1. An archaeologist shall be present on-site to monitor all ground-disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

    a. Work at the location of the find will halt immediately within thirty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter;

[11] California Historical Resources Information System. *Record search results for the proposed Andalusia project*. August 13, 2018.

b. If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist will prepare a brief informal memo/letter that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;
c. If the find appears significant and to qualify as a unique archaeological resource, the archaeologist will determine if the resource can be avoided and will detail avoidance procedures in a formal memo/letter; and
d. If the resource cannot be avoided, the archaeologist shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the community development director. The action plan shall be in conformance with California Public Resources Code 21083.2.

2. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans,

    a. If human remains are encountered they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need to know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
    b. Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
    c. Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.

3. In the event that known or suspected Native American remains are encountered or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, groundstone mortars and pestles), culturally altered ash-stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone-lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

4. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the monitoring archaeologist (typically twenty-five to fifty feet for single burial or archaeological find).

5. The exclusion zone shall be secured (e.g., twenty-four-hour surveillance) as directed by the city or county if considered prudent to avoid further disturbances.

6. The contractor foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

    a. The city of Morgan Hill Community Development Director,
    b. The contractor's point(s) of contact,
    c. The coroner of the county of Santa Clara (if human remains found), and
    d. The Native American Heritage Commission (NAHC) in Sacramento.

7. The coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American, the Coroner has twenty-four hours to notify the NAHC.

8. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.).

9. Within twenty-hour hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose,

10. Within twenty-four hours of their notification by the NAHC, the MLD may recommend to the City's community development director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.

11. If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails, then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Compliance with the above standard conditions of approval would ensure that construction of the proposed project would have a ***less-than-significant*** impact related to unique archeological, paleontological, and geological resources, as well as the disturbance of human remains.

VI. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	☐	☐	✖	☐
ii. Strong seismic ground shaking?	☐	☐	✖	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	✖	☐
iv. Landslides?	☐	☐	✖	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	✖	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	✖	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code?	☐	☐	✖	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖

ai-iv. Active faults do not cross the site, and the site is not mapped within an Alquist-Priolo Earthquake Fault Zone.[12] Therefore, the proposed project would not be subject to risks related to fault rupture. Furthermore, the site is not located within the vicinity of any steep slopes that would be subject to landslide risk, nor within an area requiring special investigation for landslides or liquefaction hazards. According to the Association of Bay Area Governments (ABAG) Resilience Program's interactive Hazards Map, the project site is located in an area of relatively low liquefaction susceptibility.[13]

Due to the proximity of the site area to nearby active faults, including but not limited to the Hayward, Calaveras, and the San Andreas fault zones, strong ground shaking could occur at the site as a result of an earthquake on any one of the faults. However, the proposed residential development would be subject to all applicable regulations within the California Building Code (CBC) and Chapter 15.08 of the City's Municipal Code, which provide standards to protect property and public safety by regulating the design and construction

[12] Department of Conservation. *State of California, Special Studies Zones, Mt. Madonna Quadrangle, Revised Official Map.* Effective January 1, 1976.

[13] Association of Bay Area Governments. *Resilience Program.* Available at: http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility. Accessed July 2018.

of foundations, building frames, and other building elements. Therefore, a ***less-than-significant*** impact would occur related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides.

b. The development of the proposed project site would cause ground disturbance of mostly top soil related to construction activity. The ground disturbance would be limited to the areas proposed for grading and excavation, including the residential building pads; curb, gutter, and sidewalk improvement areas; and drainage, sewer, and water infrastructure alignments. After grading and excavation and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Per the General Plan EIR, new development within the City that disturbs one or more acres of land is required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and prepare a Stormwater Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Accounting for potential off-site roadway improvements to the ROW located east of the Morgan Hill KinderCare facility, the proposed project would disturb approximately 3.58 acres and, thus, would be subject to such requirements. In addition, per Chapter 13.30 of the City's Municipal Code, the project applicant would be required to submit a sediment and erosion control plan to the City of Morgan Hill, Public Works Department, prior to the approval of improvement plans and issuance of building permits. The plan(s) shall be acceptable and conform to City standards to prevent significant sediment and soil erosion during construction and include the standards and guidelines found in the California Stormwater Quality Association, Stormwater Best Management Practice Handbook. Based on the above, the proposed project would not result in substantial soil erosion or the loss of topsoil. Thus, a ***less-than-significant*** impact would occur.

c-d. As noted previously, the proposed project site would not be subject to substantial landslide or liquefaction hazards. In addition, as noted in the General Plan EIR, the CBC and Chapter 15.08 of the City's Municipal Code provide standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, and other building elements.

Per the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey program, the mapped soils within the project site consist of Arbuckle gravelly loam, zero to two percent slopes, with a linear extensibility rating of 1.3 percent and approximately 16.1 percent clay content. Per the NRCS, soils with a linear extensibility rating of less than three percent and a clay content of less than 25 percent are characterized by a relatively low shrink-swell class (i.e., low expansive potential).[14]

[14] Natural Resources Conservation Service. *Calculated Coefficients of Linear Extensibility*. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/office/ssr10/tr/?cid=nrcs144p2_074840. Accessed July 2018.

Therefore, the proposed project would not be located on a geologic unit or soil that is unstable or be located on expansive soil as defined in Table 18-1B of the Uniform Building Code, and a ***less-than-significant*** impact would occur.

e. The proposed development would connect to existing City-maintained sewer infrastructure and would not include the use of septic tanks. Accordingly, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

VII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	✖	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	✖	☐

a,b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations.

The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. The proposed project's required compliance with the current California Building Energy Efficiency Standards Code was assumed in the modeling. In addition, the CO_2 intensity factor within the model was adjusted to reflect the

Pacific Gas & Electric Company's anticipated CO_2 emissions factor for 2020. All CalEEMod results are included in the appendix to this IS/MND.

According to the CalEEMod results, the proposed project would result in unmitigated operational GHG emissions of 554.30 $MTCO_2e$/yr, which is below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has adopted a threshold of significance for construction-related GHG emissions. Nevertheless, to provide a conservative estimate of emissions, the proposed project's total construction GHG emissions have been added to annual operational emissions. Construction would occur over approximately 13 months and result in total GHG emissions of 209.85 $MTCO_2e$. If the total construction emissions are added to the annual operational emissions, the project's total GHG emissions would equal 764.15 $MTCO_2e$/yr, which remains below BAAQMD's threshold of significance for operational emissions. Accordingly, the proposed project would not be expected to have a significant impact related to GHG emissions during construction.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

VIII. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✖	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	✖	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	✖
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	✖
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	✖
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✖	☐
h. Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	✖

a. Residential land uses are not typically associated with the routine transport, use, disposal, or generation of hazardous materials. Future residents may use common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount utilized on the site, occasional use of such products would not represent a substantial risk to public health or the environment. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

b. Construction activities associated with the proposed project would involve the use of various products such as concrete, paints, and adhesives. In addition, heavy-duty construction equipment operating on the project site would contain hydraulic fluid, diesel fuel, and other petroleum products. Small quantities of such potentially toxic substances would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

A Phase I ESA and a Soil Quality Investigation Report were prepared for the proposed project site by Geologica, Inc.[15] The ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental sites radius reports. According to the Phase I ESA, the proposed project site was planted with an active orchard from approximately 1939 to the mid-1960s, at which time the on-site orchard was replaced with a cultivated field. The site was never developed with any permanent structures.

Per the Phase I ESA, hazardous materials or hazardous wastes were not identified on the project site or adjacent to the site. In addition, evidence of underground storage tanks (USTs) or aboveground storage tanks (ASTs) was not observed at the site. Overall, the Phase I ESA did not note any recognized environmental conditions (RECs) associated with the project site. While the Phase I ESA did not recommend any Phase II subsurface investigations, given the past agricultural uses of the site, additional soil sampling was conducted on-site as a precautionary measure to assess potential subsurface impacts related to historic agricultural pesticide use at the property.

The soil sampling conducted on-site included collection of samples from eight four-foot deep soil borings across the property. A total of 11 samples were submitted to laboratory analysis for lead, arsenic, and organochlorine pesticides. Residual concentrations of 4,4 DDE, an organochlorine pesticide, were detected in shallow soil; however, concentrations did not exceed residential use Environmental Screening Levels (ESLs) for organochlorine pesticides and were found to decrease with depth. Lead and arsenic concentrations were indicative of natural background levels in the Bay Area. Thus, development of the proposed project site with residential uses would not result in risks related to contaminated soils.[16]

Based on the above, the project site is not associated with any historical RECs, including contaminated soils, that would pose a risk to the proposed project. Therefore, development of the proposed project would result in a ***less-than-significant*** impact related to the creation of a significant hazard to the public or the environment through reasonably foreseeable

---

[15] Geologica, Inc. *Report, Phase I Environmental Site Assessment, Vacant Parcel APN 726-02-007, Morgan Hill, California.* November 3, 2017.
Geologica, Inc. *Report, Soil Quality Investigation, Proposed Development Property, Vacant Parcel APN 762-02-007, East Dunne Avenue, Morgan Hill, CA.* December 5, 2017.

[16] Geologica, Inc. *Report, Soil Quality Investigation, Proposed Development Property, Vacant Parcel APN 762-02-007, East Dunne Avenue, Morgan Hill, CA.* December 5, 2017.

upset and accident conditions involving the likely release of hazardous materials into the environment.

c. The nearest school relative to the project site is the El Toro Elementary School, located approximately 0.5-mile to the north of the site. In addition, the Morgan Hill KinderCare daycare facility is located immediately south of the site. Development of the project site with a ~~single-family~~ residential subdivision would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Thus, ***no impact*** would result relating to the emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. Per the Phase I ESA, the proposed project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, ***no impact*** would result from implementation of the proposed project.

e,f. The public airport nearest to the project site is the San Martin Airport, which is located approximately 3.6 miles south of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area (AIA) identified in the South County Airport Comprehensive Land Use Plan.[17] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not result in an airport-related safety hazard for people residing or working in the project area, and ***no impact*** would occur.

g. Implementation of the proposed project would not result in any substantial modifications to the City's existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. In addition, the project would not conflict with the City's Emergency Operations Plan.[18] The proposed project is consistent with the site's current General Plan land use and zoning designations; thus, development of the site and associated effects on emergency evacuation routes has been anticipated per the General Plan and analyzed in the General Plan EIR. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a ***less-than-significant*** impact would occur.

h. Per the City's Wildland Urban Interface map, the proposed project site is not located in a High or Very High Fire Hazard Severity Zone. [19] In addition, buildout of the site with residential uses has been previously considered by the City, and the site is situated within a developed area. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and ***no impact*** would occur.

---

17 Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

18 City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.

19 City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?	☐	☐	✖	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	✖	☐
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	✖	☐
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	✖	☐
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	✖	☐
f.	Otherwise substantially degrade water quality?	☐	☐	✖	☐
g.	Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	✖	☐
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	✖	☐
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	☐	☐	✖	☐
j.	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	✖

a,f. The proposed project's potential to result in water quality impacts during construction and operations are discussed in further detail separately below.

Construction

Construction would require grading, excavation, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All such activities

have the potential to affect water quality and contribute to localized violations of water quality standards if storm water runoff from construction activities enters receiving waters.

Construction activities such as grading, excavation, and trenching for site improvements would result in the disturbance of on-site soils. The exposed soils have the potential to affect water quality in two ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites also have the potential to enter runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Impacts from construction-related activities would generally be short-term and of limited duration.

Water quality degradation is regulated by the federal NPDES Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the State Water Resources Control Board (SWRCB) through nine Regional Water Quality Control Boards (RWQCBs). As discussed in Section VI, Geology and Soils, of this IS/MND, new development within the City that disturbs one or more acres of land is required to comply with the NPDES General Construction Permit and prepare a Stormwater Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Accounting for off-site roadway improvements, the proposed project would disturb approximately 3.58 acres, and, thus, would be subject to the State NPDES General Permit conditions.

The proposed project would also be subject to all regional and local water quality regulations. In order to meet water quality objectives for the region, the City of Morgan Hill, City of Gilroy, and County of Santa Clara have prepared and are implementing a Revised Regional Storm Water Management Plan (SWMP). The SWMP incorporates the efforts of the City of Morgan Hill, the City of Gilroy, and the unincorporated portion of Santa Clara County, within the watershed of the Pajaro River and Monterey Bay, to meet the Phase II Storm Water Permit requirements for small municipal separate storm sewer systems (MS4s). The Upper Pajaro River Watershed is located within the jurisdiction of the Central Coast Regional Water Quality Control Board (CCRWQCB). The City of Morgan Hill implements the SWMP through an extensive program that entails: 1) the establishment of SWMP goals for the City; 2) public education and outreach; 3) public involvement and participation; 4) illicit discharge control; 5) construction site storm water runoff control; 6) post-construction storm water management in development; and 7) pollution prevention. For construction activities, the SWMP presents BMPs that are required for the control of storm water runoff quality during construction. The project's required compliance with the SWMP and NPDES would ensure that construction activities would not result in degradation of downstream water quality.

Operation

After project completion, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality during storm events. During the dry season, vehicles and other urban activities may release contaminants onto the impervious surfaces, where they would accumulate until the first storm event. During the initial storm event, or first flush, the concentrated pollutants would be transported via stormwater runoff from the site to the stormwater drainage system and eventually a downstream waterway. Typical urban pollutants that would likely be associated with the proposed project include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. In addition, stormwater runoff could cause soil erosion if not properly addressed and provide a more lucrative means of transport for pollutants to enter the waterways.

The proposed project would be managed in accordance with Resolution R3-2013-0032 issued by the California Regional Water Quality Control Board, Central Coast Region. This resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region. The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone, depending on the size of the development project. Because the proposed project site is located in an area classified as WMZ-1, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the stormwater runoff using a Low Impact Development (LID) treatment system such as biofiltration. In WMZ-1, the treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

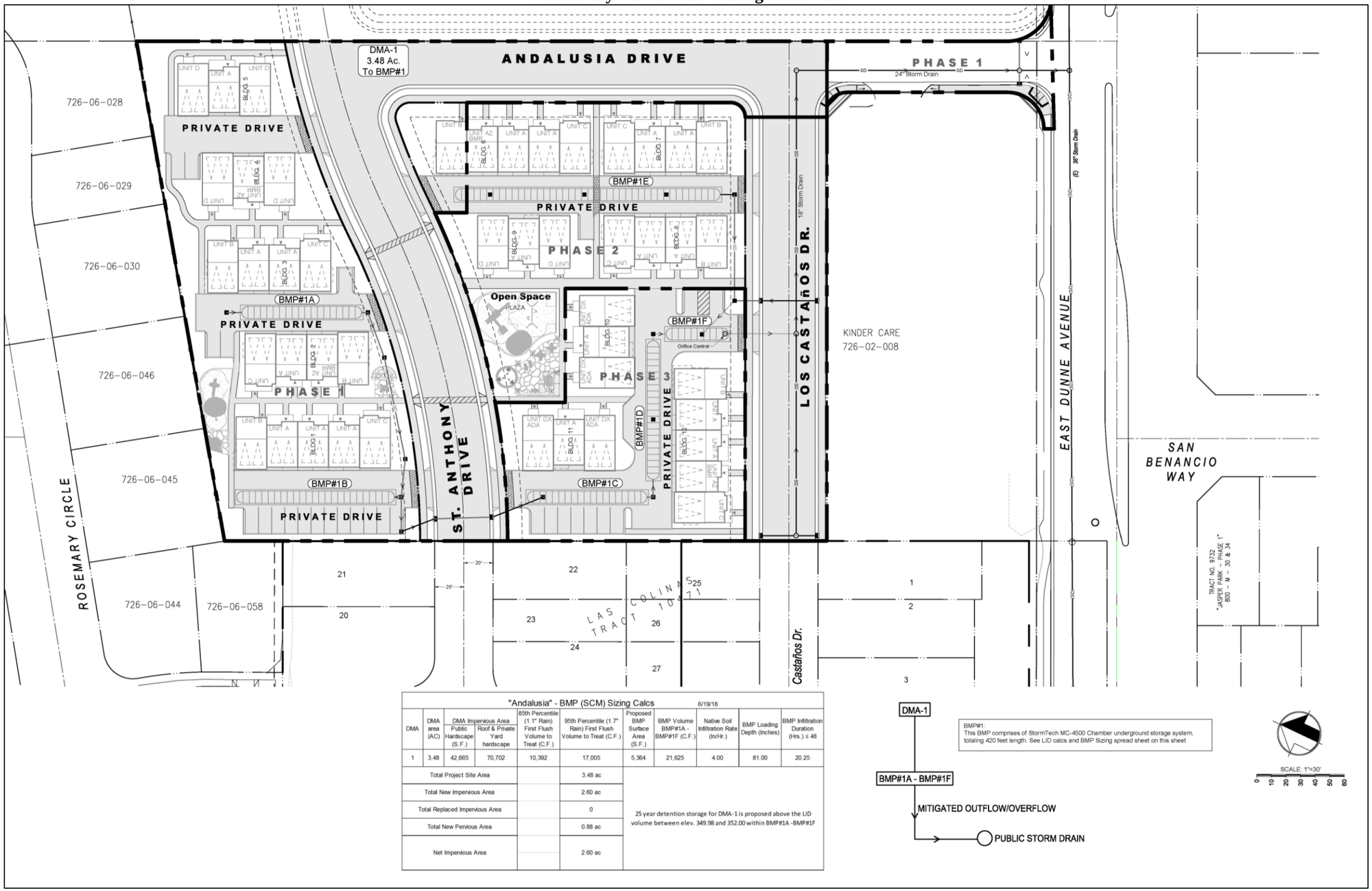
Per the Preliminary SWMP prepared for the proposed project, on-site stormwater runoff would be collected by a series of drain inlets along the internal street circulation system and transported, by way of underground storm drains, to six underground pipe manifold storage systems (BMPs #1A to #1F) located underneath the on-site private streets. The pipe manifold storage systems would treat and detain all on-site runoff prior to discharging to the City's existing public stormwater drain located in East Dunne Avenue (see Figure 9). As shown in Table 5 below, the proposed storage volume would exceed the 95th percentile first flush treatment volume requirement.

Table 5
Proposed BMP Sizing Calculations

Impervious Area		95th Percentile First Flush Volume to Treat (cubic feet)	Proposed BMP Volume (cubic feet)	Native Soil Infiltration Rate (inches per hour)	BMP Loading Depth (inches)	BMP Infiltration Duration (hours) ≤ 72
Public Hardscape (sf)	Private Hardscape (sf)					
42,665	70,702	17,005	21,625	4.00	81.00	20.25

Source: MH engineering Co., Preliminary Stormwater Control Plan, 2017.

Figure 9
Preliminary Stormwater Management Plan



"Andalusia" - BMP (SCM) Sizing Calcs 6/19/18

DMA	DMA area (AC)	DMA Impervious Area: Public Hardscape (S.F.)	DMA Impervious Area: Roof & Private Yard hardscape	85th Percentile (1.1" Rain) First Flush Volume to Treat (C.F.)	95th Percentile (1.7" Rain) First Flush Volume to Treat (C.F.)	Proposed BMP Surface Area (S.F.)	BMP Volume BMP#1A - BMP#1F (C.F.)	Native Soil Infiltration Rate (In/Hr.)	BMP Loading Depth (Inches)	BMP Infiltration Duration (Hrs.) ≤ 48
1	3.48	42,665	70,702	10,392	17,005	5,364	21,625	4.00	81.00	20.25

Total Project Site Area		3.48 ac	25 year detention storage for DMA-1 is proposed above the LID volume between elev. 349.98 and 352.00 within BMP#1A -BMP#1F
Total New Impervious Area		2.60 ac	
Total Replaced Impervious Area		0	
Total New Pervious Area		0.88 ac	
Net Impervious Area		2.60 ac	

BMP#1:
This BMP comprises of StormTech MC-4500 Chamber underground storage system, totaling 420 feet length. See LID calcs and BMP Sizing spread sheet on this sheet

SCALE: 1"=30'
0 10 20 30 40 50 60

The design, construction, operation, and maintenance of the system would be addressed in a final SWCP to be submitted to the City of Morgan Hill in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. The SWCP would demonstrate how the pipe manifold storage system would meet the specified water quality, runoff retention, and peak flow management requirements. Prior to occupancy of the project, the stormwater controls would be field verified by the City of Morgan Hill to confirm design of the controls in accordance with the specified standards, and the controls would be subject to later operation and maintenance inspections by the City.

Per Section 18.71.030A of the City's Municipal Code, the proposed project would be subject to the City's Post Construction Stormwater Pollution Prevention Ordinance. As such, the proposed project would be required to comply with the design standards set forth in Section 18.71.110, and select and implement BMPs to the satisfaction of the City in accordance with the requirements contained in the most recent versions of the following documents:

1. City of Morgan Hill Stormwater Post Construction Best Management Practices Development Standards for new development and redevelopment;
2. California Storm Water Quality Association Best Management Practice Handbooks;
3. City of Gilroy, City of Morgan Hill and County of Santa Clara Regional Stormwater Management Plan (SWMP), as approved by the Central Coast Regional Water Quality Control Board; and
4. City of Morgan Hill Hydro-modification Management Plan, as approved by the Central Coast Regional Water Quality Control Board.

The final design of the proposed drainage system would be reviewed and approved by the City of Morgan Hill Public Works Department, which would ensure that the proposed drainage system complies with the City's Post Construction Stormwater Pollution Prevention Ordinance with respect to incorporating sufficient permanent stormwater treatment control BMPs. Therefore, water quality standards or waste discharge requirements would not be violated and water quality would not be degraded as a result of the proposed project operations.

Conclusion

Based on the above discussions, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction or operations. Therefore, a ***less-than-significant*** impact would occur.

b. Per the General Plan EIR, the City's water supplies currently consist entirely of groundwater. Approximately 25 percent of the City's supply is extracted from the Coyote Valley subarea of the Santa Clara Subbasin, and approximately 75 percent is extracted from the Llagas Subbasin. The proposed project site is located within the Llagas Subbasin. Neither of the subbasins are in a condition of overdraft, and groundwater levels are not

expected to drop.[20] It should be noted that water supply is discussed in Section XVIII, Utilities and Service Systems, of this IS/MND.

Major recharge facilities within the Llagas Subbasin include the Uvas and Chesbro Reservoirs, in-stream recharge in Llagas and Uvas Creeks, the Madrone Channel, the San Pedro and Main Avenue groundwater recharge ponds, and the Uvas-Llagas pipeline which is capable of diverting water from Uvas Reservoir to Llagas Creek. The proposed project site is not located within the vicinity of any of the aforementioned recharge areas.

Given that groundwater levels within the subbasin underlying the project site are currently stable, and that the proposed project site would not be located adjacent to a major groundwater recharge area, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Thus, a ***less-than-significant*** impact would occur.

c-e. As previously mentioned, the proposed project site consists primarily of vacant, undeveloped land with ruderal vegetation. The site is bordered by existing development to the north and south, and does not include a stream or river on-site or in the immediate vicinity. Implementation of the proposed project would result in additional impervious surfaces. However, as discussed above, on-site stormwater runoff would be collected by a series of drain inlets along the internal circulation system and transported, by way of underground storm drains, to two on-site pipe manifold storage systems. The pipe manifold systems would allow stored runoff to infiltrate underlying soils in a manner similar to what currently occurs on-site. During large storm events, excess runoff would be discharged to the City's public storm drain system located in East Dunne Avenue. The pipe manifold storage system would treat and retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032.

Furthermore, stormwater runoff associated with the site would be required to comply with the City's SWMP standards. As such, the project would not significantly increase stormwater flows into the existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill Public Works Department, who will confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Thus, a ***less-than-significant*** impact would occur.

[20] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report* [pg. 4.9-18]. Adopted July 2016.

g,h. According to FEMA Flood Insurance Rate Map number 06085C0444H, the proposed project site is located within Zone X. Zone X is defined as the area between the limits of the 100-year floodplain and the 500-year floodplain (i.e. 0.2 percent annual chance flood hazard). As such, the proposed project would not be placing housing or structures within the 100-year floodplain and 100-year flood impacts to housing and flood flows would be considered ***less than significant***.

i. The ABAG has compiled dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The map for the City of Morgan Hill shows that the project site is within the dam failure inundation hazard zone for Anderson Reservoir.[21]

The dams in Santa Clara County are managed by the Santa Clara Valley Water District (SCVWD). The dams are inspected twice each year and are continuously monitored for seepage and settling and inspected immediately following significant earthquakes. A seismic stability evaluation performed in 2007 on Anderson Dam indicated that the downstream and upstream embankments could become unstable during a very large magnitude earthquake and the rupture of faults underlying the dam may have adverse impact on the outlet pipes and intake structure. The SCVWD has initiated a capital project, the Anderson Dam Seismic Retrofit Project (ADSRP), to complete the planning, design, and construction of the seismic retrofit of the dam. Construction work for the ADSRP is planned to start in 2020.[22]

In order to protect the public from potential effects until the ADSRP is complete, a storage restriction of approximately 45 feet below the dam crest has been put in place, with a reduced storage capacity of 61,810 acre-feet. The SCVWD and regulatory agencies (California Division of Safety of Dams and the Federal Energy Regulatory Commission) have approved the restriction and believe that the restriction would be sufficient to prevent the uncontrolled release of water in case of dam failure after a major earthquake.

Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, and impacts would be ***less than significant***.

j. A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. Furthermore, the distance to the nearest coastline does not subject the site to tsunami hazards, resulting in ***no impact***.

---

[21] Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed July 2018.

[22] Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit**. Available at: https://www.valleywater.org/project-updates/dam-reservoir-projects/anderson-dam-seismic-retrofit. Accessed July 2018.

X. LAND USE AND PLANNING. *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	☐	✖
b.	Conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	✖	☐
c.	Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	✖	☐

a. The proposed project would essentially function as an extension of the existing surrounding residential neighborhood. In addition, the project would provide for roadway connections to the surrounding development. As such, the project would be consistent with surrounding residential land uses and would not physically divide an established community. Therefore, ***no impact*** would occur.

b. The timing, type, and amount of residential growth in Morgan Hill is ultimately controlled by the RDCS, which was adopted for the purpose of managing growth in Morgan Hill. The RDCS generally limits development allotments to 215 residential units a year according to a point system based on a variety of factors including provision of public services, site planning, and architectural design considerations. As noted previously, the Andalusia project site has been awarded 20 building allotments for the 2019/2020 period through the City's RDCS under file number RDCS2017-1112. The 26 additional allotments required for the proposed project would be received in the 2020/2021 competition period either through (a) competition for the City's remaining allotments or (b) consideration as an on-going project, which would allow for automatic receipt of the 26 building allotments. As such, the proposed project would be consistent with the growth patterns anticipated for the City per the RDCS. Furthermore, the project would be consistent with the site's current General Plan land use and zoning designations of Residential Attached Medium Density. As such, the type and intensity of growth that would be induced by the proposed project has been anticipated per the General Plan and associated environmental effects have been analyzed in the General Plan EIR. Thus, the proposed project would result in a ***less-than-significant*** impact regarding any potential conflict with local or regional planning.

c. The project site is located within the boundaries of the SCVHP. As discussed in detail in the Biological Resources section of this IS/MND (Question 'f"), the proposed project would comply with the SCVHP mitigation requirements. Therefore, the proposed project would have a ***less-than-significant*** impact regarding a conflict with an applicable habitat conservation plan or natural communities plan.

XI. MINERAL RESOURCES. *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	✖
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	✖

a,b. The City's General Plan does not identify any regionally or locally important mineral resources within the City of Morgan Hill. The *Santa Clara County General Plan* does identify mineral resources of importance; however, the project site is not in proximity to the quarries currently in operation. Consequently, the proposed project would not result in the loss of a known mineral resource that would be of value to the region nor would the project result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, ***no impact*** to mineral resources would occur as a result of the proposed project.

XII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	✖	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	✖		☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	✖	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

a,c. The following section includes a discussion of noise standards and criteria applicable to the proposed project, predicted traffic noise level increases associated with the project, and predicted exterior and interior noise levels at the proposed ~~single-family~~ ***residential*** units and existing single-family development in the project area.

Noise Standards and Criteria

Chapter 9, Safety, Service, and Infrastructure, of the City's General Plan contains the following policies pertaining to new residential developments such as the proposed project:

SSI-8.1 Exterior Noise Level Standards. Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table SSI-1 [of the General Plan]), as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.

- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.
- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

SSI-8.5 Traffic Noise Level Standards. Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

Traffic Noise

As discussed in Chapter XVI, Transportation and Circulation, traffic generated by the proposed project would be limited to 35 trips during the AM peak hour and 46 trips during the PM peak hour. The Noise Assessment Study prepared for the East Dunne-Kyono (Las Colinas) Project by Edward L. Pack Associates, Inc., which analyzed a similar type and intensity of development as the proposed project, determined that traffic noise level increases associated with the East Dunne-Kyono (Las Colinas) Project would result in increases of 0.1 dB or less on area roadways.[23] Given the similar number of trips that would be generated by both projects, the results of the East Dunne-Kyono analysis are at least roughly equivalent to the project. Thus, the proposed project would not conflict with Policy SSI-8.5 in the General Plan related to traffic noise and would not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Exterior and Interior Noise Levels

As noted above, the proposed project would not substantially increase traffic noise on area roadways. Given that traffic noise would be the primary noise source attributable to the proposed project, the project would not result in new exceedances of the City's exterior noise level thresholds at existing or planned residential developments in the project area.

With regard to exterior noise levels at the proposed ~~single-family~~ residences, the only area of the project where the City's exterior noise level thresholds would apply would be the common areas associated with each unit cluster. The Noise Assessment Study prepared for the East Dunne-Kyono (Las Colinas) Project concluded that noise levels at residences adjacent to East Dunne Avenue would be approximately 68 decibels (dB) (Day-Night Average Level [L_{dn}]) under future traffic conditions, not accounting for any noise

[23] Edward L. Pack Associates, Inc. *Noise Assessment Study for the Planned "Las Colinas" Single-Family Development, East Dunne Avenue, Morgan Hill*. December 15, 2017.

attenuation provided by noise control barriers. Compared to backyards of residences within the East Dunne-Kyono (Las Colinas) Project, the common areas associated with the proposed project would receive shielding from the surrounding three-story buildings. In addition, traffic noise associated with East Dunne Avenue to the south of the project site would be substantially reduced due to attenuation provided by the intervening Morgan Hill KinderCare facility. As such, traffic noise at the common areas of the proposed residential development would be substantially reduced compared to the East Dunne-Kyono (Las Colinas) Project. Thus, exterior noise levels at the proposed common areas are anticipated to comply with the 60 dB L_{dn} exterior noise level threshold specified by General Plan Policy SSI-8.1.

Standard residential construction (wood siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof) typically results in an exterior to interior noise reduction of about 25 dB with windows closed, and approximately 15 dB with windows open. Per the East Dunne-Kyono (Las Colinas) Project Noise Assessment Study, the interior noise levels at the living spaces included in the East Dunne-Kyono (Las Colinas) Project closest to East Dunne Avenue would be 41 and 42 dB L_{dn} under existing and future traffic conditions, respectively, while interior noise levels at the proposed residences closest to the Morgan Hill KinderCare facility would be 39 and 40 dB L_{dn} under existing and future traffic conditions, respectively. Such interior noise levels were determined to comply with the City's 45 dB L_{dn} interior noise level standard, provided mechanical equipment was included in the construction of the East Dunne-Kyono (Las Colinas) Project to allow occupants to close doors and windows as desired for additional acoustical isolation.

With regard to the proposed Andalusia Project, units located nearest to East Dunne Avenue would be separated from East Dunne Avenue by the intervening Morgan Hill KinderCare property and the proposed Las Colinas Drive extension along the southern site boundary. Therefore, interior noise levels would be substantially reduced relative to the noise levels anticipated for the East Dunne-Kyono (Las Colinas) Project, and standard residential construction is anticipated to be adequate to ensure that the interior maximum noise levels at the proposed residences comply with the City's 55 dBA daytime limit for living spaces and the 50 dBA nighttime limit for bedrooms. Traffic noise at the exteriors of the proposed residential units would be primarily limited to relatively low-volume vehicle traffic on internal project roadways (i.e., St. Anthony Drive, Andalusia Drive, Las Colinas Drive, and the proposed private streets).

Conclusion

Based on the above, the proposed project's traffic noise level increases on area roadways would likely be 0.1 dB or less, which is below the thresholds specified by General Plan Policy SSI8.5. In addition, the proposed project would comply with the City's exterior and interior noise level standards specified by General Plan Policy SSI-8.1. Thus, a ***less-than-significant*** impact would occur with respect to exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance,

or applicable standards of other agencies, or resulting in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 6, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV and continuous vibrations of 0.10 in/sec PPV, or greater, would likely cause annoyance to sensitive receptors.

Table 6
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
in/sec	mm/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Because the proposed project would not cause continuous, long-term vibrations, the project would not be expected to result in extended annoyance to the nearby sensitive receptors.

The primary vibration-generating activities associated with the proposed project would occur during grading, placement of utilities, and construction of foundations. Table 7 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors.

Table 7
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210	0.070

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

Use of vibratory compactors/rollers could be required during construction of the proposed on-site roadways, including Las Colinas Drive, which would be located directly adjacent to the Morgan Hill KinderCare northern property line. Operation of vibratory compactors/rollers used for construction of Las Colinas Drive could operate at a distance of approximately 25 feet from the north side of the Morgan Hill KinderCare structure; thus, groundborne vibrations at the structure could potentially exceed 0.2 in/sec PPV. Use of vibratory compactors/rollers could be required during construction of the proposed on-site roadways, including Las Colinas Drive, which would be located directly adjacent to the Morgan Hill KinderCare northern property line.

It should be noted that paving activities associated with the proposed project would occur over approximately nine days and would occur at different portions of the site at different times. Thus, groundborne vibration at the facility would occur intermittently over a short period of time. Nonetheless, based on the above, the use of vibratory rollers during construction activities expose people to or generate excessive groundborne vibration or groundborne noise levels, and impacts could be ***potentially significant***.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XII-1. *During construction activities associated with the proposed project, any compaction required within 25 feet of existing structures adjacent to the project site shall be accomplished by using static drum rollers rather than vibratory compactors. The above requirement shall be included via notation on any grading plans approved for the project to the satisfaction of the Community Development Department.*

d. Construction activities associated with development of the project site would result in temporarily increased noise levels from grading, paving, building construction activities, and trenching for utilities. However, Chapter 8.28 of the Morgan Hill Municipal Code prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Construction activities may not occur on Sundays or federal holidays. The Morgan Hill Municipal Code does not specify any short-term construction noise level limits. Furthermore, construction activities related to the proposed project would include the use of sound-dampening equipment such as mufflers, air-inlet silencers, shrouds, shields, or other noise-reducing features where appropriate.

Enforcement of time restrictions specified in the Morgan Hill Noise Ordinance and the use of noise-dampened equipment would be required to ensure that the temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not be considered substantial. Therefore, in the absence of such measures, a ***potentially significant*** impact could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XII-2. *During construction activities associated with the proposed project, all internal combustion engines used at the project site shall be equipped with a type of muffler recommended by the vehicle manufacturer. All equipment shall be in good mechanical condition so as to minimize noise created by faulty or poorly maintained engine, drive-train, and other components. In addition, the project applicant shall comply with the following:*

- *Noise-generating construction activities shall be limited to the daytime hours of 7:00 AM to 8:00 PM Monday through Friday and from 9:00 AM to 6:00 PM Saturday, consistent with Chapter 8.28 of the Morgan Hill Municipal Code;*
- *All diesel-powered equipment shall be located more than 200 feet from any noise-sensitive use if the equipment is to operate for more than several hours per day; and*

- *Mobile equipment (haul trucks, concrete trucks, etc.) shall avoid local streets near residences and other noise-sensitive uses to the maximum extent feasible.*

Furthermore, subject to equipment availability and cost considerations, the project applicant shall implement the following recommendations:

- *Earth Removal: Scrapers shall be used as much as possible for earth removal, rather than the noisier loaders and hauling trucks.*
- *Backfilling: Backhoes shall be used for backfilling, as such equipment is less costly and quieter than either dozers or loaders.*
- *Ground Preparation: Graders shall be used rather than bulldozers for final grading.*
- *Building Construction: Power saws shall be shielded or enclosed where practical to decrease noise emissions. Nail guns shall be used where possible as they are less noisy than manual hammering.*
- *Construction Phasing: Buildings and/or other significant structures at the site perimeter shall be constructed as early as feasible to help shield existing sensitive receptors from noise generated on the site.*
- *Generators, Compressors, and Other Stationary Equipment: The project applicant shall ensure that generators, compressors and other stationary equipment that are housed in acoustical enclosures are used rather than equipment housed in weather enclosures or not housed in enclosures at all. Acoustical enclosures are often available with rented equipment. The equipment shall be placed as far from sensitive receptors as feasible.*
- *The project applicant shall provide a noise disturbance coordinator with a phone line and voicemail/answering machine. Signs with the noise disturbance coordinators contact information shall be posted on the project site at a highly visible location.*
- *Vehicle paths within the project site shall be graded smooth, as rough roads and paths can cause significant noise and vibration from trucks (particularly empty trucks) rolling over rough surfaces.*

The above requirements shall be included via notation on project grading plans, subject to review and approval by the Community Development Department.

e,f. The public airport nearest to the project site is the San Martin Airport, which is located approximately 3.6 miles south of the project site at 13030 Murphy Avenue. The project site is located well outside of the AIA identified in the South County Airport Comprehensive Land Use Plan.[24] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in

[24] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

the project area to excessive noise levels associated with air traffic, and ***no impact*** would occur.

XIII. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	✖	☐
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	✖	☐

a. As discussed previously, residential development within the City of Morgan Hill is controlled by the RDCS. By approving Measure S in 2016, Morgan Hill voters extended the City's RDCS to 2035 and established a population ceiling of 58,200. In addition, Measure S sets a maximum number of allotments available of 215 residential units per year. The RDCS was adopted for the purpose of controlling impacts from rapid growth in Morgan Hill. The RDCS generally limits the units to be built each year according to a competitive process involving a criteria and point system that addresses a variety of factors of a project, including provision of public services, site planning, and architectural design considerations.

As discussed previously, the Andalusia project site has been awarded 20 building allotments for the 2019/2020 period through the City's RDCS under file number RDCS2017-1112. The 26 additional allotments required for the proposed project would be received in the 2020/2021 competition period either through (a) competition for the City's remaining allotments or (b) consideration as an on-going project, which would allow for automatic receipt of the 26 building allotments.

Implementation of the RDCS was analyzed in the General Plan EIR. In addition, the proposed project is consistent with the project site's current General Plan land use and zoning designations. Therefore, assuming 46 building allotments are awarded to the project site, population growth associated with the proposed project has been previously anticipated by the City, and the project would not directly or indirectly induce substantial population growth in the area beyond what has been previously analyzed in the General Plan EIR. Therefore, a ***less-than-significant*** impact would occur.

b,c. The proposed project site does not contain any existing residences. As such, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere. Therefore, a ***less-than-significant*** impact would occur.

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	✖	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	☐	☐	✖	☐

a-c,e. The City of Morgan Hill contracts with CAL FIRE (State Department of Forestry and Fire Protection) for fire protection services. Three fire stations are located within the City boundaries: El Toro Station, located at 18300 Old Monterey Road; Dunne-Hill Station, located at 2100 Dunne Avenue; and the CAL FIRE station at 15670 Monterey Street. The nearest fire station (El Toro Station) is located approximately 1.9 miles to the northwest of the site by way of Butterfield Boulevard and Monterey Road. The incremental increase in demand associated with the proposed project would not necessitate new or physically altered facilities and would not be substantial enough that the current response times could not be maintained. Accordingly, the response time from the El Toro Station would be anticipated to be within the City's preferred response time of five minutes or less. The project site is also located within the Morgan Hill Police Department's normal patrol routes, and, thus, police response times would be comparable to nearby existing developments. Furthermore, given that the project is consistent with the site's current General Plan land use and zoning designations, impacts related to provision of new or physically altered fire and police protection facilities has been previously analyzed in the General Plan EIR. The General Plan EIR concluded that buildout of the City would have a less-than-significant impact related to the provision of such public services.

The Morgan Hill Unified School District (MHUSD) operates public education facilities that serve the project site and surrounding area. The City of Morgan Hill is served by eight elementary schools, two middle schools, two high schools, one continuation school, one K-8 home school program, and one community adult school. Utilizing the MHUSD student yield rate of 0.465 students per household, the total anticipated development potential for the project site (46 ~~single-family~~ residential units) would add approximately 21 new students to MHUSD schools.

The City collects development impact fees to help pay for public services that include public schools. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act involving the planning, use, or development of real property." (Government Code 65996(b).) Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." Therefore,

according to SB 50, the payment of the necessary school impact fees for the project would be full and satisfactory CEQA mitigation.

With regard to other public facilities, such as libraries, given the relatively small number of units included in the proposed project, the project would not be anticipated to result in a substantial increase in demand for library services, or other public facilities, such that expanded facilities would be required. Future residents of the proposed project would have access to the 28,000-sf Morgan Hill Library, which is operated by the Santa Clara County Library District. In addition, the General Plan EIR concluded that buildout of the City, including the project site, would have a less-than-significant impact related to libraries.

Based on the above, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, and schools.

d. The proposed project is anticipated to generate an estimated 142 additional residents (46 units X 3.08 persons per household = 142 residents) in the City of Morgan Hill.[25] The City of Morgan Hill has adopted a parkland ordinance (Municipal Code Chapter 17.28) that requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The acreage of parkland or amount of the in-lieu fee required is based upon criteria outlined in Chapter 17.28 of the City's Municipal Code. In addition, the proposed project would include a total of 0.83-acre of on-site open space/common area as an amenity for future residents. Given that the proposed project would be required to comply with the City's in-lieu fees for residential developments, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for parks.

[25] City of Morgan Hill. *Housing Element* [Table 1-1]. Adopted February 18, 2015.

XV. RECREATION. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	✖	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	✖	☐

a,b. Considering the total of 46 residential units, the proposed project would generate approximately 142 additional residents (based on 3.08 persons per household) in the City of Morgan Hill.[26] Given the City's parkland goal of five acres per 1,000 residents, the proposed project would create the need for a minor amount of additional parkland (0.5 acres). The City of Morgan Hill has adopted a parkland dedication/parkland in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The project is not proposing to construct or dedicate any land for recreational facilities; therefore, the project applicant would pay in-lieu fees. In addition to the in-lieu fees, new development within the City is required to pay park impact fees to the City at a rate of $~~1,412~~***1,362*** per ~~single~~***multi***-family dwelling unit.[27] The park impact fees imposed by the City generate revenue to fund park facilities needed to serve new development. In addition, while the proposed project would not provide any public parkland on-site, the project would include a total of 0.83-acre of on-site open space/common area as an amenity for future residents. Based on the above, a ***less-than-significant*** impact would occur with regard to recreational resources.

[26] According to the persons per household demographic projection for Morgan Hill for the year 2015 (see Table 1-1 of City of Morgan Hill Housing Element, adopted February 18, 2015.

[27] City of Morgan Hill Public Works Department. *Schedule of Development Impact Fees.* January 15, 2018.

XVI. TRANSPORTATION/CIRCULATION. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	✖	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	✖	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	✖
d. Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
e. Result in inadequate emergency access?	☐	☐	✖	☐
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	✖	☐

a,b. The Transportation Impact Analysis prepared for the East Dunne-Kyono (Las Colinas) Project west of the proposed project site provided an analysis of cumulative traffic conditions (i.e., buildout of the Morgan Hill General Plan), including buildout of the subject 3.48-acre project site at the maximum allowable density of 84 single-family attached units. A total of three cumulative plus project scenarios were evaluated in the Transportation Impact Analysis, each of which included buildout of the Andalusia project site at the maximum allowable density of 84 single-family residences.[28] The cumulative scenarios are defined in the Transportation Impact Analysis as follows:

- **Cumulative Plus Project Conditions: Access Alternative #1** – Cumulative Conditions plus traffic generated by the East Dunne-Kyono (Las Colinas) with site access to East Dunne Avenue only (without access to Diana Avenue).
- **Cumulative Plus Project Conditions: Access Alternative #2** – Cumulative Conditions plus traffic generated by the East Dunne-Kyono (Las Colinas) with site access to East Dunne Avenue and to Diana Avenue (by way of Rosemary Circle and St. Joseph Drive).

[28] Fehr & Peers. *Kyono Residential Development, Draft Focused Transportation Impact Analysis.* February 2018.

- **Cumulative Plus Project Conditions: Access Alternative #3** – Cumulative Conditions with Walnut Grove Drive Extension plus traffic generated by the East Dunne-Kyono (Las Colinas) with access to East Dunne Avenue, to Diana Avenue via Rosemary Circle and St. Joseph Drive, and to Diana Avenue by way of the Walnut Grove Drive/St. Anthony Drive extension.

Consistent with the Institute of Transportation Engineers (ITE) Manual trip generation rates for single-family homes (Land Use Code 210), the proposed 46-unit ~~single-family~~ development was anticipated to generate approximately 9.52 trips per unit, or 438 daily vehicle trips, at full buildout. Thus, the project would generate approximately 362 fewer daily trips than was analyzed for the project site in the Transportation Impact Analysis. Of the 438 daily trips, an estimated 35 trips would occur during the AM peak hour (9 inbound and 26 outbound), and 46 trips would occur during the PM peak hour (29 inbound and 17 outbound) (see Table 8). The distribution of the traffic generated by the proposed project, the East Dunne-Kyono (Las Colinas) Project, and other pending development onto the roadway system was based on the locations of complementary land uses and prevailing travel patterns near the site.

Table 8
Trip Generation Estimates

Development Scenario	Size	Daily Trips		AM Peak Hour		PM Peak Hour	
		Rate	Total Trips	Rate	Total Trips	Rate	Total Trips
Proposed Project	46	9.52	438	0.75	35	1.00	46
84-Unit Development	84	9.52	800	0.75	63	1.00	84
Difference	**-38**		**-362**		**-28**		**-38**

The East Dunne-Kyono (Las Colinas) Transportation Impact Analysis evaluated three access alternatives for long-term cumulative scenarios. Under Cumulative Access Alternative #1, the East Dunne-Kyono (Las Colinas) project would have access to East Dunne Avenue only at three intersections, including East Dunne Avenue/San Simeon Drive, East Dunne Avenue and the existing KinderCare driveway, and East Dunne Avenue/Walnut Grove Drive. East Dunne Avenue and San Simeon Drive would remain as a stop-controlled intersection with right-turns in, right-turns out only entering and exiting the East Dunne-Kyono (Las Colinas) project site. The other two access intersections would retain existing geometries.

Under Cumulative Access Alternative #2, the East Dunne-Kyono (Las Colinas) project would have access to East Dunne Avenue at East Dunne Avenue/San Simeon Drive, as well as access to Diana Avenue by way of the Walnut Grove Drive extension. The intersection of Diana Avenue/Cayman Street would change from a three-legged intersection to a four-legged intersection with the Walnut Grove Drive extension. The northbound and southbound movements would be stop controlled. Geometries along East Dunne Avenue would be identical to geometries for Access Alternative #1.

Under Cumulative Access Alternative #3, the East Dunne-Kyono (Las Colinas) project would have access to East Dunne Avenue at East Dunne Avenue/San Simeon Drive, as well as access to Diana Avenue via the Walnut Grove Drive extension, Rosemary Circle, and St. Joseph Drive. Geometries along East Dunne Avenue and Diana Avenue would be identical to geometries for Access Alternative #2.

Per the East Dunne-Kyono (Las Colinas) Transportation Impact Analysis, all study intersections in the project area would continue to operate at acceptable service levels (Level of Service [LOS] D or better) during the AM and PM peak hours under cumulative conditions (see Table 9 and Table 10). Given that development of the proposed project and associated increases in vehicle traffic were analyzed in the East Dunne-Kyono (Las Colinas) Transportation Impact Analysis, and all study intersections in the project area are anticipated to operate acceptably under cumulative conditions, the proposed project would not conflict with an applicable plan, ordinance, policy or congestion management plan for the area related to traffic. Thus, a ***less-than-significant*** impact would occur.

c. The proposed project would not involve any uses or operations that would cause any changes in air traffic patterns, including increases in traffic levels or changes in location that would result in any safety risks. Therefore, ***no impact*** related to air traffic patterns would occur as a result of the proposed project.

d,e. The proposed on-site circulation system would be designed consistent with all applicable State and City roadway requirements and would provide adequate emergency access to the site. The project would include one direct access to East Dunne Avenue, with two additional access points connecting to the planned East Dunne-Kyono (Las Colinas) Project west of the site. In addition, the proposed project would not substantially modify the existing roadway system. Thus, the proposed project would not increase hazards due to a design feature, such as a sharp curve or dangerous intersection, or incompatible uses and would have a ***less-than-significant*** impact related to emergency access and hazardous design features.

f. The proposed project's impact related to transit, bicycle, and pedestrian facilities is discussed below.

Transit Facilities

In the City of Morgan Hill, bus service is operated by the VTA, and passenger rail service is operated by Caltrain. Local buses include community Route 16, regular service Route 68, and express/limited stop Routes 121 and 168. In addition, Monterey-Salinas Transit (MST) provides bus service in the project area by way of Route 55. The nearest bus stops relative to the project site are located approximately 0.5-mile west of the site along Monterey Road. The nearest Caltrain station (Morgan Hill Caltrain) is also located approximately 0.5-mile west of the site. Three northbound trains serve the Morgan Hill Caltrain Station during the AM peak period, and three southbound trains serve the station during the PM peak period.

Table 9
Cumulative and Cumulative Plus Project Conditions: Access Alternative #1 Intersection LOS

Intersection	Control Type[4]	LOS Standard	Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions: Access Alternative #1			
				Delay[1]	LOS	Delay[1]	LOS	Critical Change V/C[2]	Average Critical Delay[3]
1. East Dunne Ave./ Butterfield Blvd.	Signal	D	AM	42.5	D	42.9	D	+0.006	+0.7
			PM	39.5	D	39.7	D	+0.004	+0.3
2. East Dunne Ave./ San Simeon Dr.	TWSC	D	AM	12.9	B	12.9	B	+0.000	+0.1
			PM	14.3	B	14.4	B	+0.001	+0.0
3. East Dunne Ave./ Walnut Grove Dr.	Signal	D	AM	31.4	C	31.5	C	+0.003	+0.2
			PM	36.8	D+	36.8	D+	+0.000	+0.0
4. Diana Ave./ Butterfield Blvd.	Signal	D	AM	25.3	C	25.4	C	+0.002	+0.2
			PM	21.7	C+	21.7	C+	+0.003	+0.1
5. Diana Ave./ St. Joseph Dr.	AWSC	D	AM	7.9	A	7.9	A	+0.000	+0.0
			PM	7.9	A	7.9	A	+0.001	+0.0
6. Diana Ave./ St. Joseph Dr.	TWSC	D	AM	8.9	A	8.9	A	+0.000	+0.0
			PM	8.8	A	8.8	A	+0.000	+0.0

Notes:
1 Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
2 Change in critical volume to capacity ratio (V/C) between Existing Conditions and Existing Plus Project Conditions.
3 Change in critical movement delay between Existing Conditions and Existing Plus Project Conditions.
4 Signal = Signalized Intersection; TWSC = Two-Way Stop Controlled Intersection; AWSC = All-Way Stop Controlled Intersection.

Source: Fehr & Peers, December 2017.

Table 10
Cumulative and Cumulative Plus Project Conditions: Access Alternatives #2 and #3 Intersection LOS

Intersection	Control Type[4]	LOS Standard	Peak Hour	Cumulative Conditions		Cumulative Plus Project Conditions: Access Alternative #2				Cumulative Plus Project Conditions: Access Alternative #3			
				Delay[1]	LOS	Delay[1]	LOS	Critical Change V/C[2]	Average Critical Delay[3]	Delay[1]	LOS	Critical Change V/C[2]	Average Critical Delay[3]
1. East Dunne Ave./ Butterfield Blvd.	Signal	D	AM	42.5	D	39.7	D	+0.005	+0.4	39.5	D	+0.001	+0.0
			PM	39.5	D	39.2	D	+0.002	+0.1	39.3	D	+0.004	+0.3
2. East Dunne Ave./ San Simeon Dr.	TWSC	D	AM	12.9	B	12.4	B	+0.000	+0.1	12.4	B	+0.000	+0.1
			PM	14.3	B	13.7	B	+0.001	+0.0	13.7	B	+0.001	+0.0
3. East Dunne Ave./ Walnut Grove Dr.	Signal	D	AM	31.4	C	35.3	D+	+0.011	+0.4	35.3	D+	+0.011	+0.4
			PM	36.8	D+	41.5	D	+0.008	+0.4	41.5	D	+0.008	+0.4
4. Diana Ave./ Butterfield Blvd.	Signal	D	AM	25.3	C	22.9	C+	+0.001	+0.0	22.7	C+	-0.003	-0.4
			PM	21.7	C+	20.4	C+	+0.002	+0.0	20.2	C+	-0.002	-0.3
5. Diana Ave./ St. Joseph Dr.	AWSC	D	AM	7.9	A	7.8	A	+0.000	+0.0	7.8	A	+0.000	+0.0
			PM	7.9	A	7.8	A	-0.001	+0.0	7.8	A	-0.002	+0.0
6. Diana Ave./ St. Joseph Dr.	TWSC	D	AM	8.9	A	10.7	B	+0.000	+0.0	10.7	B	+0.000	+0.0
			PM	8.8	A	11.0	B	+0.001	+0.0	11.0	B	+0.000	+0.0

Notes:
[1] Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop control intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
[2] Change in critical volume to capacity ratio (V/C) between Existing Conditions and Existing Plus Project Conditions.
[3] Change in critical movement delay between Existing Conditions and Existing Plus Project Conditions.
[4] Signal = Signalized Intersection; TWSC = Two-Way Stop Controlled Intersection; AWSC = All-Way Stop Controlled Intersection.

Source: Fehr & Peers, December 2017.

VTA's FY 18-19 Transit Service Plan, adopted in May of 2017, outlines the redesign of the VTA's transit network to increase ridership and to improve cost-effectiveness. As part of the FY 18-19 Transit Service Plan, route realignment and service frequency changes have been proposed for VTA bus routes in the project area. Changes include renumbering Route 16 as Route 87 and retaining the route on an interim basis until more effective service can be implemented. The FY 18-19 Transit Service Plan does not include any other relevant transit changes that would affect the proposed project.

The proposed project would not conflict with any existing or planned transit facilities. In addition, due to the relatively small size of the project (46 ~~single-family~~ residential units), the project would generate a relatively small number of transit trips, and, thus, would not substantially increase demand for transit services in the project area. Furthermore, because trips generated by the proposed project would not substantially increase the delay at nearby intersections, the project would not substantially affect transit vehicle delay for area bus routes. Overall, the proposed project would not have a substantial adverse effect on transit facilities in the project area.

Bicycle and Pedestrian Facilities

Currently, Class II bike lanes are provided along East Dunne Avenue in the project vicinity. In addition, a 0.8-mile multi-use trail is provided along Butterfield Road to the west of the project site.[29] The proposed project would provide adequate pedestrian and bicycle network connectivity to the surrounding area, with connections to existing sidewalks at East Dunne Avenue to the south and the planned St. Anthony Drive and Las Colinas Drive extensions to the west. In addition, a substantial portion of the proposed on-site pedestrian walkways would include landscaped buffers to separate pedestrians from the adjoining roadways. While the proposed project would not include bike lanes within the project site, residential neighborhood streets typically have low speeds that support mixed-flow traffic for both vehicles and bicyclists.

Given that the proposed project would not disrupt existing pedestrian and bicycle facilities, eliminate existing pedestrian and/or bicycle facilities, interfere with planned pedestrian and bicycle facilities, increase conflicts between drivers, pedestrians, and/or bicyclists, or create inconsistencies or conflicts with policies in the City's Bikeways, Trails, Parks, and Recreation Master Plan, the project would not have a substantial adverse effect on bicycle or pedestrian facilities in the project area.

Conclusion

Based on the above, the proposed project would not conflict with adopted policies supporting alternative transportation, and a ***less-than-significant*** impact would occur.

[29] City of Morgan Hill. *Bikeways, Trails, Parks and Recreation Master Plan* [Figure 2-8]. Adopted July 20, 2017.

XVII. TRIBAL CULTURAL RESOURCES. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	✖	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	✖	☐

Discussion

a,b. As discussed in Section V, Cultural Resources, of this IS/MND, the proposed project site does not contain any existing permanent structures or any other known resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), and does not contain known resources that could be considered historic pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. The records search of the CHRIS database for cultural resource site records and survey reports within the proposed project area indicated a relatively low potential for unrecorded tribal cultural resources within the project site.[30]

Based on the above, the proposed project is not expected to adversely impact tribal cultural resources. In addition, the project applicant would be required to comply with the City's standard conditions of approval related to cultural resource discovery. Therefore, a ***less-than-significant*** impact to tribal cultural resources would occur.

[30] California Historical Resources Information System. *Record search results for the proposed Andalusia project*. August 13, 2018.

XVIII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	✖	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	✖	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✖	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	✖	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	✖	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	✖	☐

a,b,d. As discussed previously, residential development within the City of Morgan Hill is controlled by the RDCS. By approving Measure S in 2016, Morgan Hill voters extended the City's RDCS to 2035 and established a population ceiling of 58,200. In addition, Measure S sets a maximum number of allotments available of 215 residential units per year. The RDCS was adopted for the purpose of controlling impacts from rapid growth in Morgan Hill. The RDCS generally limits the units to be built each year according to a competitive process involving a criteria and point system that addresses a variety of factors of a project, including impacts to the water supply system, sanitary sewer and treatment plant, drainage and runoff, and other municipal services. As noted previously, the proposed project site has already received 20 building allotments, and is anticipated to receive the remaining 26 allotments required as part of the 2020/2021 competition period. In addition, the project is consistent with the site's current General Plan land use and zoning designations.

Brief discussions of the wastewater and water systems that would serve the proposed project are included below.

Wastewater

The City of Morgan Hill sewer collection system consists of approximately 135 miles of 6-inch through 30-inch diameter sewers, and includes 15 sewage lift stations and associated force mains. The "backbone" of the system consists of the trunk sewers, generally 12-inches in diameter and larger, that convey the collected wastewater flows through an outfall that continues south to the Wastewater Treatment Facility (WWTF) in Gilroy. The WWTF is owned and operated by the South County Regional Wastewater Authority (SCRWA), under a Joint Powers Agreement with the cities of Morgan Hill and Gilroy. The City of Morgan Hill has an allocation of 3.56 million gallons per day (MGD) from the WWTF. The average dry weather flow from the City of Morgan Hill was approximately 2.7 MGD in 2015.[31]

The proposed project would connect to existing sewer lines located within the site vicinity. Based on population and water conservation projections for the City of Morgan Hill, the WWTP's current allocated capacity of 3.56 MGD is anticipated to be reached in approximately 2023, with expansion planned for 2022.[32] Based on the current and projected sewage flows associated with the WWTF, the incremental increase in wastewater generation associated with the development of up to 46 residential units would not require the construction of new or expansion of existing wastewater treatment facilities, as adequate capacity is already sufficient to serve the proposed project. Furthermore, given that the project is consistent with the site's current General Plan land use and zoning designations, wastewater generation associated with development of the site has been anticipated per the General Plan and analyzed in the General Plan EIR. The General Plan EIR determined that impacts related to wastewater treatment capacity would be less than significant.

Water

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 14 groundwater wells, 10 potable water storage tanks, 10 booster stations, and over 160 miles of pressured pipes ranging from two to 14 inches in diameter. The City's water distribution system meets the needs of existing customers. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs.

According to the City's Urban Water Management Plan, the City's projected water supply far exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2030.[33] For example, during a normal year in 2015, the anticipated supply exceeds the anticipated demand by 6,923 acre-feet per year. Furthermore, during a normal dry year in 2030, the anticipated supply exceeds the anticipated demand by 6,309 acre-feet per year. Based on the proposed land uses, the proposed project would result in an increase in

[31] City of Morgan Hill. *2035 General Plan Draft EIR*. January, 2016.
[32] South County Regional Wastewater Authority. *Biennial Budget Transmittal – FY 14 & FY 15*. April 3, 2013.
[33] City of Morgan Hill. *2010 Urban Water Management Plan* [pg. 5-23 to 5-24]. 2010.

demand for water supply from what has occurred at the site. However, based on information in the City's Urban Water Management Plan, the City has adequate water supply to serve the proposed project. In addition, the increase in water usage that would result from the construction of 46 residential units was already anticipated for the project site by the General Plan, and subsequently the City's Urban Water Management Plan, as the proposed project would be consistent with the site's existing land use designation. Therefore, the proposed project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, and sufficient water supplies would be available to serve the project from existing entitlements and resources.

Conclusion

As discussed above, the increase in wastewater generation and water usage for the 46 anticipated residential units would not be considered substantial. Furthermore, the approval of the proposed project site through the RDCS process ensures consistency with the growth rate in the City's General Plan, and the project would not exceed the City's planned wastewater treatment or water demand projections. As a result, the project would have ***less-than-significant*** impacts to water and wastewater facilities.

c,e. As discussed in Section IX, Hydrology and Water Quality, of this IS/MND on-site stormwater runoff would be collected by a series of drain inlets along the internal circulation system and transported, by way of underground storm drains, to two on-site pipe manifold storage systems. The pipe manifold storage systems would treat and detain all on-site runoff prior to discharging to the City's existing stormwater drain located in East Dunne Avenue. The design, construction, operation, and maintenance of the systems would be addressed in a final SWCP to be submitted to the City of Morgan Hill in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. The SWCP would demonstrate how the pipe manifold storage system would meet the specified water quality, runoff retention, and peak flow management requirements.

As such, the project would not significantly increase stormwater flows into the existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill Public Works Department to confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, and the City would have adequate capacity to serve the project's projected demand in addition to the City's existing commitments. Thus, a ***less-than-significant*** impact would occur.

f,g. Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Recology South Valley has contracted through 2017 with the Salinas Valley Solid Waste Authority to dispose of municipal solid waste at Johnson Canyon Sanitary Landfill. Per the Landfill's proposed 2018 Solid Waste Facility (SWF) Permit, the Landfill has a maximum permitted tonnage limit of 1,574 tons

per day, a design capacity of 13,834,328 cubic yards, and an estimated closure date of 2055.[34] For fiscal year 2016/2017, 198,388 tons of waste were disposed of at the Landfill.[35] The proposed project would not produce enough solid waste for the landfill to exceed capacity. Therefore, sufficient permitted capacity exists at the Johnson Canyon Sanitary Landfill to accommodate the proposed project's incremental increase in solid waste disposal needs.

The proposed project would involve the generation of typical household solid waste and would not require specialized solid waste disposal needs. The proposed 46 units would each require a standard 48-gallon garbage cart for regularly-scheduled solid waste collection through Recology South Valley. Furthermore, per CBC Section 4.408, the proposed project would be required to submit a Waste Management Plan to the City detailing on-site sorting of construction debris. Implementation of the Waste Management Plan would ensure that the proposed project meets established diversion requirements for reused or recycled construction waste. As such, the proposed project would comply with applicable federal, State, and local statutes and regulations related to solid waste. Therefore, the proposed project would have a ***less-than-significant*** impact related to solid waste.

[34] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005).* Available at: http://www.calrecycle.ca.gov/SWFacilities/Directory/27-AA-0005/Detail/. Accessed July 2018.

[35] Salinas Valley Solid Waste Authority. *2016-17 Annual Report.* 2018.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	✖	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	✖	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

a. As discussed in Section IV, Biological Resources, of this IS/MND, the proposed project would be required to implement mitigation measures to minimize impacts to burrowing owls and ensure consistency with the SCVHP. In addition, the site does not contain known historical or cultural resources. Although unlikely, the possibility exists that subsurface excavation of the site during grading and other construction activities could unearth deposits of cultural significance. However, this IS/MND explains how the City's Municipal Code requires standard measures for development projects that would ensure any impacts to archaeological resources would be less than significant. Therefore, the proposed project would have a ***less-than-significant*** impact related to degradation of the quality of the environment, reduction of habitat or plant and wildlife species, and elimination of important examples of California history or prehistory.

b. As discussed in Section X, Land Use and Planning, of this IS/MND, the timing, type, and amount of residential growth in Morgan Hill is ultimately controlled by the RDCS, which was adopted for the purpose of managing growth in the City. As noted previously, the Andalusia project site has been awarded 20 building allotments for the 2019/2020 period through the City's RDCS under file number RDCS2017-1112. The applicant is anticipated to receive the 26 required building allotments during the upcoming 2020/2021 competition period. Therefore, cumulative growth impacts associated with the proposed project have been previously anticipated by the City and analyzed in the General Plan EIR. Furthermore, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies. When viewed in conjunction with other closely related past, present,

or reasonably foreseeable future projects, development of the proposed project would not contribute to cumulative impacts in the City of Morgan Hill, and the project's cumulative impact would be ***less than significant***.

c. The proposed project site would be developed in a generally urbanized and built-up area of the City of Morgan Hill. Development of the proposed project would not be expected to result in adverse impacts to human beings, either directly or indirectly. The potential for environmental effects on human beings is addressed within this IS/MND and all impacts have been identified as less-than-significant or less than significant with the incorporation of mitigation measures. As such, a ***less-than-significant*** impact would result.

Appendix

CalEEMod Modeling Results

Andalusia

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	46.00	Dwelling Unit	3.58	82,800.00	132

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E’s RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Grading - Applicant provided

Vehicle Trips - Per ITE rate (210)

Area Mitigation -

Water Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	262.00
tblConstructionPhase	NumDays	230.00	262.00
tblConstructionPhase	NumDays	8.00	9.00
tblConstructionPhase	NumDays	18.00	5.00
tblConstructionPhase	NumDays	5.00	2.00
tblConstructionPhase	PhaseEndDate	7/23/2020	8/5/2020
tblConstructionPhase	PhaseEndDate	6/3/2020	7/22/2020
tblConstructionPhase	PhaseEndDate	7/17/2019	7/15/2019
tblConstructionPhase	PhaseEndDate	6/29/2020	7/22/2019
tblConstructionPhase	PhaseEndDate	7/5/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	6/30/2020	8/6/2019
tblConstructionPhase	PhaseStartDate	7/18/2019	7/23/2019
tblConstructionPhase	PhaseStartDate	7/6/2019	7/3/2019
tblConstructionPhase	PhaseStartDate	6/4/2020	7/16/2019
tblGrading	AcresOfGrading	4.50	3.58
tblLandUse	LotAcreage	14.94	3.58
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	9.91	9.52
tblVehicleTrips	SU_TR	8.62	9.52

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4120	1.5651	1.2638	2.1200e-003	0.0591	0.0924	0.1515	0.0283	0.0871	0.1154	0.0000	186.2740	186.2740	0.0412	0.0000	187.3038
2020	0.5270	1.5775	1.4196	2.4100e-003	0.0141	0.0905	0.1045	3.7900e-003	0.0856	0.0894	0.0000	208.7582	208.7582	0.0435	0.0000	209.8465
Maximum	**0.5270**	**1.5775**	**1.4196**	**2.4100e-003**	**0.0591**	**0.0924**	**0.1515**	**0.0283**	**0.0871**	**0.1154**	**0.0000**	**208.7582**	**208.7582**	**0.0435**	**0.0000**	**209.8465**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4120	1.5651	1.2638	2.1200e-003	0.0591	0.0924	0.1515	0.0283	0.0871	0.1154	0.0000	186.2738	186.2738	0.0412	0.0000	187.3036
2020	0.5270	1.5775	1.4196	2.4100e-003	0.0141	0.0905	0.1045	3.7900e-003	0.0856	0.0894	0.0000	208.7580	208.7580	0.0435	0.0000	209.8463
Maximum	**0.5270**	**1.5775**	**1.4196**	**2.4100e-003**	**0.0591**	**0.0924**	**0.1515**	**0.0283**	**0.0871**	**0.1154**	**0.0000**	**208.7580**	**208.7580**	**0.0435**	**0.0000**	**209.8463**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2019	9-30-2019	0.9513	0.9513
2	10-1-2019	12-31-2019	1.0116	1.0116
3	1-1-2020	3-31-2020	0.9231	0.9231
4	4-1-2020	6-30-2020	0.9224	0.9224
5	7-1-2020	9-30-2020	0.2550	0.2550
		Highest	1.0116	1.0116

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6632	9.8900e-003	0.7365	8.3000e-004		0.0587	0.0587		0.0587	0.0587	5.8471	1.9936	7.8407	0.0116	3.3000e-004	8.2300
Energy	7.2100e-003	0.0616	0.0262	3.9000e-004		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	120.3025	120.3025	6.2600e-003	2.3200e-003	121.1507
Mobile	0.1170	0.5653	1.3199	4.4800e-003	0.3765	4.1800e-003	0.3806	0.1011	3.9200e-003	0.1050	0.0000	411.0035	411.0035	0.0157	0.0000	411.3947
Waste						0.0000	0.0000		0.0000	0.0000	11.2538	0.0000	11.2538	0.6651	0.0000	27.8809
Water						0.0000	0.0000		0.0000	0.0000	0.9508	3.0032	3.9540	0.0980	2.3700e-003	7.1087
Total	**0.7874**	**0.6368**	**2.0826**	**5.7000e-003**	**0.3765**	**0.0679**	**0.4444**	**0.1011**	**0.0676**	**0.1687**	**18.0518**	**536.3027**	**554.3545**	**0.7965**	**5.0200e-003**	**575.7650**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3924	7.3200e-003	0.3437	4.0000e-005		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	4.4629	4.4629	6.2000e-004	7.0000e-005	4.4996
Energy	5.6000e-003	0.0479	0.0204	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	103.9091	103.9091	5.9100e-003	2.0200e-003	104.6586
Mobile	0.1170	0.5653	1.3199	4.4800e-003	0.3765	4.1800e-003	0.3806	0.1011	3.9200e-003	0.1050	0.0000	411.0035	411.0035	0.0157	0.0000	411.3947
Waste						0.0000	0.0000		0.0000	0.0000	11.2538	0.0000	11.2538	0.6651	0.0000	27.8809
Water						0.0000	0.0000		0.0000	0.0000	0.7607	2.5765	3.3372	0.0784	1.9000e-003	5.8624
Total	**0.5150**	**0.6205**	**1.6840**	**4.8300e-003**	**0.3765**	**0.0102**	**0.3867**	**0.1011**	**9.9500e-003**	**0.1110**	**12.0145**	**521.9520**	**533.9665**	**0.7657**	**3.9900e-003**	**554.2962**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**34.59**	**2.56**	**19.14**	**15.26**	**0.00**	**84.96**	**12.98**	**0.00**	**85.29**	**34.20**	**33.44**	**2.68**	**3.68**	**3.88**	**20.52**	**3.73**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/2/2019	5	2	
2	Grading	Grading	7/3/2019	7/15/2019	5	9	
3	Building Construction	Building Construction	7/23/2019	7/22/2020	5	262	
4	Paving	Paving	7/16/2019	7/22/2019	5	5	
5	Architectural Coating	Architectural Coating	8/6/2019	8/5/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.58

Acres of Paving: 0

Residential Indoor: 167,670; Residential Outdoor: 55,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading	Excavators	1	8.00	158	0.38
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	17.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0456	0.0221	4.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**4.3400e-003**	**0.0456**	**0.0221**	**4.0000e-005**	**0.0181**	**2.3900e-003**	**0.0205**	**9.9300e-003**	**2.2000e-003**	**0.0121**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1287	0.1287	0.0000	0.0000	0.1287
Total	**7.0000e-005**	**5.0000e-005**	**4.9000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1287**	**0.1287**	**0.0000**	**0.0000**	**0.1287**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0456	0.0221	4.0000e-005		2.3900e-003	2.3900e-003		2.2000e-003	2.2000e-003	0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total	**4.3400e-003**	**0.0456**	**0.0221**	**4.0000e-005**	**0.0181**	**2.3900e-003**	**0.0205**	**9.9300e-003**	**2.2000e-003**	**0.0121**	**0.0000**	**3.4169**	**3.4169**	**1.0800e-003**	**0.0000**	**3.4439**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.9000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1287	0.1287	0.0000	0.0000	0.1287
Total	**7.0000e-005**	**5.0000e-005**	**4.9000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1287**	**0.1287**	**0.0000**	**0.0000**	**0.1287**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0290	0.0000	0.0290	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.1276	0.0733	1.3000e-004		6.2900e-003	6.2900e-003		5.7900e-003	5.7900e-003	0.0000	11.9890	11.9890	3.7900e-003	0.0000	12.0839
Total	**0.0116**	**0.1276**	**0.0733**	**1.3000e-004**	**0.0290**	**6.2900e-003**	**0.0353**	**0.0151**	**5.7900e-003**	**0.0209**	**0.0000**	**11.9890**	**11.9890**	**3.7900e-003**	**0.0000**	**12.0839**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	1.8500e-003	1.0000e-005	5.3000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4825	0.4825	1.0000e-005	0.0000	0.4828
Total	**2.4000e-004**	**1.8000e-004**	**1.8500e-003**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4825**	**0.4825**	**1.0000e-005**	**0.0000**	**0.4828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0290	0.0000	0.0290	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0116	0.1276	0.0733	1.3000e-004		6.2900e-003	6.2900e-003		5.7900e-003	5.7900e-003	0.0000	11.9890	11.9890	3.7900e-003	0.0000	12.0838
Total	**0.0116**	**0.1276**	**0.0733**	**1.3000e-004**	**0.0290**	**6.2900e-003**	**0.0353**	**0.0151**	**5.7900e-003**	**0.0209**	**0.0000**	**11.9890**	**11.9890**	**3.7900e-003**	**0.0000**	**12.0838**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	1.8500e-003	1.0000e-005	5.3000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4825	0.4825	1.0000e-005	0.0000	0.4828
Total	**2.4000e-004**	**1.8000e-004**	**1.8500e-003**	**1.0000e-005**	**5.3000e-004**	**0.0000**	**5.4000e-004**	**1.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4825**	**0.4825**	**1.0000e-005**	**0.0000**	**0.4828**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1370	1.2226	0.9955	1.5600e-003		0.0748	0.0748		0.0703	0.0703	0.0000	136.3604	136.3604	0.0332	0.0000	137.1909
Total	**0.1370**	**1.2226**	**0.9955**	**1.5600e-003**		**0.0748**	**0.0748**		**0.0703**	**0.0703**	**0.0000**	**136.3604**	**136.3604**	**0.0332**	**0.0000**	**137.1909**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0367	9.4200e-003	8.0000e-005	1.9000e-003	2.5000e-004	2.1500e-003	5.5000e-004	2.4000e-004	7.9000e-004	0.0000	7.6422	7.6422	4.2000e-004	0.0000	7.6528
Worker	3.5700e-003	2.6500e-003	0.0270	8.0000e-005	7.7900e-003	5.0000e-005	7.8400e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	7.0476	7.0476	1.9000e-004	0.0000	7.0524
Total	**4.9400e-003**	**0.0394**	**0.0364**	**1.6000e-004**	**9.6900e-003**	**3.0000e-004**	**9.9900e-003**	**2.6200e-003**	**2.9000e-004**	**2.9100e-003**	**0.0000**	**14.6899**	**14.6899**	**6.1000e-004**	**0.0000**	**14.7052**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1370	1.2226	0.9955	1.5600e-003		0.0748	0.0748		0.0703	0.0703	0.0000	136.3603	136.3603	0.0332	0.0000	137.1907
Total	**0.1370**	**1.2226**	**0.9955**	**1.5600e-003**		**0.0748**	**0.0748**		**0.0703**	**0.0703**	**0.0000**	**136.3603**	**136.3603**	**0.0332**	**0.0000**	**137.1907**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0367	9.4200e-003	8.0000e-005	1.9000e-003	2.5000e-004	2.1500e-003	5.5000e-004	2.4000e-004	7.9000e-004	0.0000	7.6422	7.6422	4.2000e-004	0.0000	7.6528
Worker	3.5700e-003	2.6500e-003	0.0270	8.0000e-005	7.7900e-003	5.0000e-005	7.8400e-003	2.0700e-003	5.0000e-005	2.1200e-003	0.0000	7.0476	7.0476	1.9000e-004	0.0000	7.0524
Total	**4.9400e-003**	**0.0394**	**0.0364**	**1.6000e-004**	**9.6900e-003**	**3.0000e-004**	**9.9900e-003**	**2.6200e-003**	**2.9000e-004**	**2.9100e-003**	**0.0000**	**14.6899**	**14.6899**	**6.1000e-004**	**0.0000**	**14.7052**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1548	1.4006	1.2299	1.9600e-003		0.0815	0.0815		0.0767	0.0767	0.0000	169.0753	169.0753	0.0413	0.0000	170.1065
Total	**0.1548**	**1.4006**	**1.2299**	**1.9600e-003**		**0.0815**	**0.0815**		**0.0767**	**0.0767**	**0.0000**	**169.0753**	**169.0753**	**0.0413**	**0.0000**	**170.1065**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4100e-003	0.0421	0.0106	1.0000e-004	2.3900e-003	2.1000e-004	2.6000e-003	6.9000e-004	2.0000e-004	8.9000e-004	0.0000	9.5564	9.5564	4.9000e-004	0.0000	9.5687
Worker	4.1100e-003	2.9400e-003	0.0305	1.0000e-004	9.8100e-003	7.0000e-005	9.8700e-003	2.6100e-003	6.0000e-005	2.6700e-003	0.0000	8.5912	8.5912	2.1000e-004	0.0000	8.5964
Total	**5.5200e-003**	**0.0451**	**0.0411**	**2.0000e-004**	**0.0122**	**2.8000e-004**	**0.0125**	**3.3000e-003**	**2.6000e-004**	**3.5600e-003**	**0.0000**	**18.1476**	**18.1476**	**7.0000e-004**	**0.0000**	**18.1651**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1548	1.4006	1.2299	1.9600e-003		0.0815	0.0815		0.0767	0.0767	0.0000	169.0751	169.0751	0.0413	0.0000	170.1063
Total	**0.1548**	**1.4006**	**1.2299**	**1.9600e-003**		**0.0815**	**0.0815**		**0.0767**	**0.0767**	**0.0000**	**169.0751**	**169.0751**	**0.0413**	**0.0000**	**170.1063**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4100e-003	0.0421	0.0106	1.0000e-004	2.3900e-003	2.1000e-004	2.6000e-003	6.9000e-004	2.0000e-004	8.9000e-004	0.0000	9.5564	9.5564	4.9000e-004	0.0000	9.5687
Worker	4.1100e-003	2.9400e-003	0.0305	1.0000e-004	9.8100e-003	7.0000e-005	9.8700e-003	2.6100e-003	6.0000e-005	2.6700e-003	0.0000	8.5912	8.5912	2.1000e-004	0.0000	8.5964
Total	**5.5200e-003**	**0.0451**	**0.0411**	**2.0000e-004**	**0.0122**	**2.8000e-004**	**0.0125**	**3.3000e-003**	**2.6000e-004**	**3.5600e-003**	**0.0000**	**18.1476**	**18.1476**	**7.0000e-004**	**0.0000**	**18.1651**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1700e-003	0.0319	0.0308	5.0000e-005		1.8000e-003	1.8000e-003		1.6600e-003	1.6600e-003	0.0000	4.1806	4.1806	1.2900e-003	0.0000	4.2127
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1700e-003**	**0.0319**	**0.0308**	**5.0000e-005**		**1.8000e-003**	**1.8000e-003**		**1.6600e-003**	**1.6600e-003**	**0.0000**	**4.1806**	**4.1806**	**1.2900e-003**	**0.0000**	**4.2127**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3700e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3574	0.3574	1.0000e-005	0.0000	0.3576
Total	**1.8000e-004**	**1.3000e-004**	**1.3700e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3574**	**0.3574**	**1.0000e-005**	**0.0000**	**0.3576**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1700e-003	0.0319	0.0308	5.0000e-005		1.8000e-003	1.8000e-003		1.6600e-003	1.6600e-003	0.0000	4.1806	4.1806	1.2900e-003	0.0000	4.2127
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1700e-003**	**0.0319**	**0.0308**	**5.0000e-005**		**1.8000e-003**	**1.8000e-003**		**1.6600e-003**	**1.6600e-003**	**0.0000**	**4.1806**	**4.1806**	**1.2900e-003**	**0.0000**	**4.2127**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.3700e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3574	0.3574	1.0000e-005	0.0000	0.3576
Total	**1.8000e-004**	**1.3000e-004**	**1.3700e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3574**	**0.3574**	**1.0000e-005**	**0.0000**	**0.3576**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.0973	0.0976	1.6000e-004		6.8200e-003	6.8200e-003		6.8200e-003	6.8200e-003	0.0000	13.5322	13.5322	1.1400e-003	0.0000	13.5608
Total	**0.2499**	**0.0973**	**0.0976**	**1.6000e-004**		**6.8200e-003**	**6.8200e-003**		**6.8200e-003**	**6.8200e-003**	**0.0000**	**13.5322**	**13.5322**	**1.1400e-003**	**0.0000**	**13.5608**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.3500e-003	1.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1365	1.1365	3.0000e-005	0.0000	1.1373
Total	**5.8000e-004**	**4.3000e-004**	**4.3500e-003**	**1.0000e-005**	**1.2600e-003**	**1.0000e-005**	**1.2700e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.1365**	**1.1365**	**3.0000e-005**	**0.0000**	**1.1373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.0973	0.0976	1.6000e-004		6.8200e-003	6.8200e-003		6.8200e-003	6.8200e-003	0.0000	13.5322	13.5322	1.1400e-003	0.0000	13.5608
Total	**0.2499**	**0.0973**	**0.0976**	**1.6000e-004**		**6.8200e-003**	**6.8200e-003**		**6.8200e-003**	**6.8200e-003**	**0.0000**	**13.5322**	**13.5322**	**1.1400e-003**	**0.0000**	**13.5608**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.3500e-003	1.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1365	1.1365	3.0000e-005	0.0000	1.1373
Total	**5.8000e-004**	**4.3000e-004**	**4.3500e-003**	**1.0000e-005**	**1.2600e-003**	**1.0000e-005**	**1.2700e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.1365**	**1.1365**	**3.0000e-005**	**0.0000**	**1.1373**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0189	0.1313	0.1429	2.3000e-004		8.6500e-003	8.6500e-003		8.6500e-003	8.6500e-003	0.0000	19.9154	19.9154	1.5400e-003	0.0000	19.9539
Total	**0.3659**	**0.1313**	**0.1429**	**2.3000e-004**		**8.6500e-003**	**8.6500e-003**		**8.6500e-003**	**8.6500e-003**	**0.0000**	**19.9154**	**19.9154**	**1.5400e-003**	**0.0000**	**19.9539**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.5000e-004	5.7500e-003	2.0000e-005	1.8500e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6199	1.6199	4.0000e-005	0.0000	1.6209
Total	**7.8000e-004**	**5.5000e-004**	**5.7500e-003**	**2.0000e-005**	**1.8500e-003**	**1.0000e-005**	**1.8600e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6199**	**1.6199**	**4.0000e-005**	**0.0000**	**1.6209**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3471					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0189	0.1313	0.1429	2.3000e-004		8.6500e-003	8.6500e-003		8.6500e-003	8.6500e-003	0.0000	19.9154	19.9154	1.5400e-003	0.0000	19.9539
Total	**0.3659**	**0.1313**	**0.1429**	**2.3000e-004**		**8.6500e-003**	**8.6500e-003**		**8.6500e-003**	**8.6500e-003**	**0.0000**	**19.9154**	**19.9154**	**1.5400e-003**	**0.0000**	**19.9539**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.5000e-004	5.7500e-003	2.0000e-005	1.8500e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.6199	1.6199	4.0000e-005	0.0000	1.6209
Total	**7.8000e-004**	**5.5000e-004**	**5.7500e-003**	**2.0000e-005**	**1.8500e-003**	**1.0000e-005**	**1.8600e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.6199**	**1.6199**	**4.0000e-005**	**0.0000**	**1.6209**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1170	0.5653	1.3199	4.4800e-003	0.3765	4.1800e-003	0.3806	0.1011	3.9200e-003	0.1050	0.0000	411.0035	411.0035	0.0157	0.0000	411.3947
Unmitigated	0.1170	0.5653	1.3199	4.4800e-003	0.3765	4.1800e-003	0.3806	0.1011	3.9200e-003	0.1050	0.0000	411.0035	411.0035	0.0157	0.0000	411.3947

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	437.92	437.92	437.92	1,011,423	1,011,423
Total	437.92	437.92	437.92	1,011,423	1,011,423

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.4626	48.4626	4.8500e-003	1.0000e-003	48.8826
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	48.9554	48.9554	4.9000e-003	1.0100e-003	49.3796
NaturalGas Mitigated	5.6000e-003	0.0479	0.0204	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4465	55.4465	1.0600e-003	1.0200e-003	55.7760
NaturalGas Unmitigated	7.2100e-003	0.0616	0.0262	3.9000e-004		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	71.3471	71.3471	1.3700e-003	1.3100e-003	71.7711

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.33699e+006	7.2100e-003	0.0616	0.0262	3.9000e-004		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	71.3471	71.3471	1.3700e-003	1.3100e-003	71.7711
Total		**7.2100e-003**	**0.0616**	**0.0262**	**3.9000e-004**		**4.9800e-003**	**4.9800e-003**		**4.9800e-003**	**4.9800e-003**	**0.0000**	**71.3471**	**71.3471**	**1.3700e-003**	**1.3100e-003**	**71.7711**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.03903e+006	5.6000e-003	0.0479	0.0204	3.1000e-004		3.8700e-003	3.8700e-003		3.8700e-003	3.8700e-003	0.0000	55.4465	55.4465	1.0600e-003	1.0200e-003	55.7760
Total		**5.6000e-003**	**0.0479**	**0.0204**	**3.1000e-004**		**3.8700e-003**	**3.8700e-003**		**3.8700e-003**	**3.8700e-003**	**0.0000**	**55.4465**	**55.4465**	**1.0600e-003**	**1.0200e-003**	**55.7760**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	372166	48.9554	4.9000e-003	1.0100e-003	49.3796
Total		**48.9554**	**4.9000e-003**	**1.0100e-003**	**49.3796**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	368420	48.4626	4.8500e-003	1.0000e-003	48.8826
Total		**48.4626**	**4.8500e-003**	**1.0000e-003**	**48.8826**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3924	7.3200e-003	0.3437	4.0000e-005		2.1600e-003	2.1600e-003		2.1600e-003	2.1600e-003	0.0000	4.4629	4.4629	6.2000e-004	7.0000e-005	4.4996
Unmitigated	0.6632	9.8900e-003	0.7365	8.3000e-004		0.0587	0.0587		0.0587	0.0587	5.8471	1.9936	7.8407	0.0116	3.3000e-004	8.2300

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2711	5.9400e-003	0.3942	8.1000e-004		0.0569	0.0569		0.0569	0.0569	5.8471	1.4357	7.2828	0.0111	3.3000e-004	7.6586
Landscaping	0.0104	3.9500e-003	0.3423	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.5579	0.5579	5.4000e-004	0.0000	0.5714
Total	**0.6632**	**9.8900e-003**	**0.7365**	**8.3000e-004**		**0.0587**	**0.0587**		**0.0587**	**0.0587**	**5.8471**	**1.9936**	**7.8407**	**0.0116**	**3.3000e-004**	**8.2300**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.9000e-004	3.3700e-003	1.4300e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.9050	3.9050	7.0000e-005	7.0000e-005	3.9282
Landscaping	0.0104	3.9500e-003	0.3423	2.0000e-005		1.8900e-003	1.8900e-003		1.8900e-003	1.8900e-003	0.0000	0.5579	0.5579	5.4000e-004	0.0000	0.5714
Total	**0.3924**	**7.3200e-003**	**0.3437**	**4.0000e-005**		**2.1600e-003**	**2.1600e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**4.4629**	**4.4629**	**6.1000e-004**	**7.0000e-005**	**4.4996**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.3372	0.0784	1.9000e-003	5.8624
Unmitigated	3.9540	0.0980	2.3700e-003	7.1087

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.99709 / 1.88947	3.9540	0.0980	2.3700e-003	7.1087
Total		**3.9540**	**0.0980**	**2.3700e-003**	**7.1087**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.39767 / 1.88947	3.3372	0.0784	1.9000e-003	5.8624
Total		**3.3372**	**0.0784**	**1.9000e-003**	**5.8624**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.2538	0.6651	0.0000	27.8809
Unmitigated	11.2538	0.6651	0.0000	27.8809

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	55.44	11.2538	0.6651	0.0000	27.8809
Total		**11.2538**	**0.6651**	**0.0000**	**27.8809**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	55.44	11.2538	0.6651	0.0000	27.8809
Total		**11.2538**	**0.6651**	**0.0000**	**27.8809**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Andalusia

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	46.00	Dwelling Unit	3.58	82,800.00	132

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E’s RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Grading - Applicant provided

Vehicle Trips - Per ITE rate (210)

Area Mitigation -

Water Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	262.00
tblConstructionPhase	NumDays	230.00	262.00
tblConstructionPhase	NumDays	8.00	9.00
tblConstructionPhase	NumDays	18.00	5.00
tblConstructionPhase	NumDays	5.00	2.00
tblConstructionPhase	PhaseEndDate	7/23/2020	8/5/2020
tblConstructionPhase	PhaseEndDate	6/3/2020	7/22/2020
tblConstructionPhase	PhaseEndDate	7/17/2019	7/15/2019
tblConstructionPhase	PhaseEndDate	6/29/2020	7/22/2019
tblConstructionPhase	PhaseEndDate	7/5/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	6/30/2020	8/6/2019
tblConstructionPhase	PhaseStartDate	7/18/2019	7/23/2019
tblConstructionPhase	PhaseStartDate	7/6/2019	7/3/2019
tblConstructionPhase	PhaseStartDate	6/4/2020	7/16/2019
tblGrading	AcresOfGrading	4.50	3.58
tblLandUse	LotAcreage	14.94	3.58
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	9.91	9.52
tblVehicleTrips	SU_TR	8.62	9.52

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.1762	45.6156	22.5997	0.0395	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	3,918.9881	3,918.9881	1.1957	0.0000	3,948.8811
2020	6.8998	21.4818	19.3525	0.0329	0.1981	1.2318	1.4300	0.0533	1.1649	1.2182	0.0000	3,144.5204	3,144.5204	0.6558	0.0000	3,160.9151
Maximum	**7.1762**	**45.6156**	**22.5997**	**0.0395**	**18.2141**	**2.3913**	**20.6055**	**9.9699**	**2.2000**	**12.1699**	**0.0000**	**3,918.9881**	**3,918.9881**	**1.1957**	**0.0000**	**3,948.8811**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.1762	45.6156	22.5997	0.0395	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	3,918.9881	3,918.9881	1.1957	0.0000	3,948.8811
2020	6.8998	21.4818	19.3525	0.0329	0.1981	1.2318	1.4300	0.0533	1.1649	1.2182	0.0000	3,144.5204	3,144.5204	0.6558	0.0000	3,160.9151
Maximum	**7.1762**	**45.6156**	**22.5997**	**0.0395**	**18.2141**	**2.3913**	**20.6055**	**9.9699**	**2.2000**	**12.1699**	**0.0000**	**3,918.9881**	**3,918.9881**	**1.1957**	**0.0000**	**3,948.8811**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	49.8771	0.9618	65.4566	0.1163		8.7391	8.7391		8.7391	8.7391	937.4036	290.9511	1,228.3546	1.1657	0.0662	1,277.2084
Energy	0.0395	0.3376	0.1437	2.1500e-003		0.0273	0.0273		0.0273	0.0273		430.9409	430.9409	8.2600e-003	7.9000e-003	433.5018
Mobile	0.7352	3.0082	7.5207	0.0261	2.1489	0.0229	2.1718	0.5750	0.0215	0.5965		2,635.1547	2,635.1547	0.0953		2,637.5382
Total	**50.6519**	**4.3075**	**73.1209**	**0.1445**	**2.1489**	**8.7893**	**10.9382**	**0.5750**	**8.7878**	**9.3628**	**937.4036**	**3,357.0467**	**4,294.4502**	**1.2693**	**0.0741**	**4,348.2483**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2774	0.6493	4.0609	4.0600e-003		0.0699	0.0699		0.0699	0.0699	0.0000	779.6334	779.6334	0.0214	0.0142	784.3913
Energy	0.0307	0.2623	0.1116	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9003	334.9003	6.4200e-003	6.1400e-003	336.8904
Mobile	0.7352	3.0082	7.5207	0.0261	2.1489	0.0229	2.1718	0.5750	0.0215	0.5965		2,635.1547	2,635.1547	0.0953		2,637.5382
Total	**3.0433**	**3.9198**	**11.6932**	**0.0318**	**2.1489**	**0.1140**	**2.2630**	**0.5750**	**0.1126**	**0.6876**	**0.0000**	**3,749.6884**	**3,749.6884**	**0.1232**	**0.0203**	**3,758.8199**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**93.99**	**9.00**	**84.01**	**78.00**	**0.00**	**98.70**	**79.31**	**0.00**	**98.72**	**92.66**	**100.00**	**-11.70**	**12.69**	**90.29**	**72.57**	**13.56**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/2/2019	5	2	
2	Grading	Grading	7/3/2019	7/15/2019	5	9	
3	Building Construction	Building Construction	7/23/2019	7/22/2020	5	262	
4	Paving	Paving	7/16/2019	7/22/2019	5	5	
5	Architectural Coating	Architectural Coating	8/6/2019	8/5/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.58

Acres of Paving: 0

Residential Indoor: 167,670; Residential Outdoor: 55,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading	Excavators	1	8.00	158	0.38
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	17.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0429	0.5367	1.5300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		152.5352	152.5352	4.0600e-003		152.6366
Total	**0.0685**	**0.0429**	**0.5367**	**1.5300e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**152.5352**	**152.5352**	**4.0600e-003**		**152.6366**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0685	0.0429	0.5367	1.5300e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		152.5352	152.5352	4.0600e-003		152.6366
Total	**0.0685**	**0.0429**	**0.5367**	**1.5300e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**152.5352**	**152.5352**	**4.0600e-003**		**152.6366**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4439	0.0000	6.4439	3.3558	0.0000	3.3558			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.4439**	**1.3974**	**7.8413**	**3.3558**	**1.2856**	**4.6414**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4439	0.0000	6.4439	3.3558	0.0000	3.3558			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.4439**	**1.3974**	**7.8413**	**3.3558**	**1.2856**	**4.6414**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0570	0.0357	0.4473	1.2800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		127.1127	127.1127	3.3800e-003		127.1972
Total	**0.0570**	**0.0357**	**0.4473**	**1.2800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**127.1127**	**127.1127**	**3.3800e-003**		**127.1972**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0232	0.6245	0.1525	1.3900e-003	0.0338	4.3200e-003	0.0382	9.7400e-003	4.1300e-003	0.0139		146.7775	146.7775	7.7600e-003		146.9716
Worker	0.0647	0.0405	0.5069	1.4500e-003	0.1397	9.2000e-004	0.1406	0.0370	8.5000e-004	0.0379		144.0610	144.0610	3.8300e-003		144.1568
Total	**0.0878**	**0.6650**	**0.6594**	**2.8400e-003**	**0.1735**	**5.2400e-003**	**0.1787**	**0.0468**	**4.9800e-003**	**0.0518**		**290.8386**	**290.8386**	**0.0116**		**291.1284**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0232	0.6245	0.1525	1.3900e-003	0.0338	4.3200e-003	0.0382	9.7400e-003	4.1300e-003	0.0139		146.7775	146.7775	7.7600e-003		146.9716
Worker	0.0647	0.0405	0.5069	1.4500e-003	0.1397	9.2000e-004	0.1406	0.0370	8.5000e-004	0.0379		144.0610	144.0610	3.8300e-003		144.1568
Total	**0.0878**	**0.6650**	**0.6594**	**2.8400e-003**	**0.1735**	**5.2400e-003**	**0.1787**	**0.0468**	**4.9800e-003**	**0.0518**		**290.8386**	**290.8386**	**0.0116**		**291.1284**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0190	0.5698	0.1359	1.3800e-003	0.0338	2.7900e-003	0.0366	9.7400e-003	2.6700e-003	0.0124		145.8540	145.8540	7.1800e-003		146.0336
Worker	0.0591	0.0358	0.4561	1.4000e-003	0.1397	9.0000e-004	0.1406	0.0370	8.3000e-004	0.0379		139.5320	139.5320	3.3600e-003		139.6161
Total	**0.0781**	**0.6056**	**0.5920**	**2.7800e-003**	**0.1735**	**3.6900e-003**	**0.1772**	**0.0468**	**3.5000e-003**	**0.0503**		**285.3860**	**285.3860**	**0.0105**		**285.6497**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0190	0.5698	0.1359	1.3800e-003	0.0338	2.7900e-003	0.0366	9.7400e-003	2.6700e-003	0.0124		145.8540	145.8540	7.1800e-003		146.0336
Worker	0.0591	0.0358	0.4561	1.4000e-003	0.1397	9.0000e-004	0.1406	0.0370	8.3000e-004	0.0379		139.5320	139.5320	3.3600e-003		139.6161
Total	**0.0781**	**0.6056**	**0.5920**	**2.7800e-003**	**0.1735**	**3.6900e-003**	**0.1772**	**0.0468**	**3.5000e-003**	**0.0503**		**285.3860**	**285.3860**	**0.0105**		**285.6497**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637		1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2679**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**		**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0476	0.5964	1.7000e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		169.4836	169.4836	4.5100e-003		169.5962
Total	**0.0761**	**0.0476**	**0.5964**	**1.7000e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**169.4836**	**169.4836**	**4.5100e-003**		**169.5962**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637	0.0000	1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2679**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**	**0.0000**	**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0476	0.5964	1.7000e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		169.4836	169.4836	4.5100e-003		169.5962
Total	**0.0761**	**0.0476**	**0.5964**	**1.7000e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**169.4836**	**169.4836**	**4.5100e-003**		**169.5962**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**4.7158**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0114	7.1500e-003	0.0895	2.6000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		25.4225	25.4225	6.8000e-004		25.4394
Total	**0.0114**	**7.1500e-003**	**0.0895**	**2.6000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**25.4225**	**25.4225**	**6.8000e-004**		**25.4394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**4.7158**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0114	7.1500e-003	0.0895	2.6000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		25.4225	25.4225	6.8000e-004		25.4394
Total	**0.0114**	**7.1500e-003**	**0.0895**	**2.6000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**25.4225**	**25.4225**	**6.8000e-004**		**25.4394**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**4.6915**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0104	6.3100e-003	0.0805	2.5000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		24.6233	24.6233	5.9000e-004		24.6381
Total	**0.0104**	**6.3100e-003**	**0.0805**	**2.5000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**24.6233**	**24.6233**	**5.9000e-004**		**24.6381**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**4.6915**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0104	6.3100e-003	0.0805	2.5000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		24.6233	24.6233	5.9000e-004		24.6381
Total	**0.0104**	**6.3100e-003**	**0.0805**	**2.5000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**24.6233**	**24.6233**	**5.9000e-004**		**24.6381**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7352	3.0082	7.5207	0.0261	2.1489	0.0229	2.1718	0.5750	0.0215	0.5965		2,635.1547	2,635.1547	0.0953		2,637.5382
Unmitigated	0.7352	3.0082	7.5207	0.0261	2.1489	0.0229	2.1718	0.5750	0.0215	0.5965		2,635.1547	2,635.1547	0.0953		2,637.5382

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	437.92	437.92	437.92	1,011,423	1,011,423
Total	437.92	437.92	437.92	1,011,423	1,011,423

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0307	0.2623	0.1116	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9003	334.9003	6.4200e-003	6.1400e-003	336.8904
NaturalGas Unmitigated	0.0395	0.3376	0.1437	2.1500e-003		0.0273	0.0273		0.0273	0.0273		430.9409	430.9409	8.2600e-003	7.9000e-003	433.5018

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	3663	0.0395	0.3376	0.1437	2.1500e-003		0.0273	0.0273		0.0273	0.0273		430.9409	430.9409	8.2600e-003	7.9000e-003	433.5018
Total		**0.0395**	**0.3376**	**0.1437**	**2.1500e-003**		**0.0273**	**0.0273**		**0.0273**	**0.0273**		**430.9409**	**430.9409**	**8.2600e-003**	**7.9000e-003**	**433.5018**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2.84665	0.0307	0.2623	0.1116	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9003	334.9003	6.4200e-003	6.1400e-003	336.8904
Total		**0.0307**	**0.2623**	**0.1116**	**1.6700e-003**		**0.0212**	**0.0212**		**0.0212**	**0.0212**		**334.9003**	**334.9003**	**6.4200e-003**	**6.1400e-003**	**336.8904**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2774	0.6493	4.0609	4.0600e-003		0.0699	0.0699		0.0699	0.0699	0.0000	779.6334	779.6334	0.0214	0.0142	784.3913
Unmitigated	49.8771	0.9618	65.4566	0.1163		8.7391	8.7391		8.7391	8.7391	937.4036	290.9511	1,228.3546	1.1657	0.0662	1,277.2084

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3194					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7719					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	47.6706	0.9179	61.6533	0.1161		8.7181	8.7181		8.7181	8.7181	937.4036	284.1177	1,221.5212	1.1591	0.0662	1,270.2094
Landscaping	0.1152	0.0439	3.8033	2.0000e-004		0.0210	0.0210		0.0210	0.0210		6.8334	6.8334	6.6200e-003		6.9990
Total	**49.8771**	**0.9618**	**65.4566**	**0.1163**		**8.7390**	**8.7390**		**8.7390**	**8.7390**	**937.4036**	**290.9511**	**1,228.3546**	**1.1657**	**0.0662**	**1,277.2084**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3194					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7719					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0708	0.6054	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489	0.0000	772.8000	772.8000	0.0148	0.0142	777.3924
Landscaping	0.1152	0.0439	3.8033	2.0000e-004		0.0210	0.0210		0.0210	0.0210		6.8334	6.8334	6.6200e-003		6.9990
Total	**2.2774**	**0.6493**	**4.0609**	**4.0600e-003**		**0.0699**	**0.0699**		**0.0699**	**0.0699**	**0.0000**	**779.6334**	**779.6334**	**0.0214**	**0.0142**	**784.3913**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Andalusia

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	46.00	Dwelling Unit	3.58	82,800.00	132

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Intensity factor for CO2 adjusted based on PG&E’s RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Grading - Applicant provided

Vehicle Trips - Per ITE rate (210)

Area Mitigation -

Water Mitigation -

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	262.00
tblConstructionPhase	NumDays	230.00	262.00
tblConstructionPhase	NumDays	8.00	9.00
tblConstructionPhase	NumDays	18.00	5.00
tblConstructionPhase	NumDays	5.00	2.00
tblConstructionPhase	PhaseEndDate	7/23/2020	8/5/2020
tblConstructionPhase	PhaseEndDate	6/3/2020	7/22/2020
tblConstructionPhase	PhaseEndDate	7/17/2019	7/15/2019
tblConstructionPhase	PhaseEndDate	6/29/2020	7/22/2019
tblConstructionPhase	PhaseEndDate	7/5/2019	7/2/2019
tblConstructionPhase	PhaseStartDate	6/30/2020	8/6/2019
tblConstructionPhase	PhaseStartDate	7/18/2019	7/23/2019
tblConstructionPhase	PhaseStartDate	7/6/2019	7/3/2019
tblConstructionPhase	PhaseStartDate	6/4/2020	7/16/2019
tblGrading	AcresOfGrading	4.50	3.58
tblLandUse	LotAcreage	14.94	3.58
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	9.91	9.52
tblVehicleTrips	SU_TR	8.62	9.52

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.1817	45.6257	22.5698	0.0394	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	3,906.9666	3,906.9666	1.1955	0.0000	3,936.8537
2020	6.9048	21.4981	19.3394	0.0327	0.1981	1.2319	1.4300	0.0533	1.1650	1.2183	0.0000	3,127.8878	3,127.8878	0.6561	0.0000	3,144.2907
Maximum	**7.1817**	**45.6257**	**22.5698**	**0.0394**	**18.2141**	**2.3913**	**20.6055**	**9.9699**	**2.2000**	**12.1699**	**0.0000**	**3,906.9666**	**3,906.9666**	**1.1955**	**0.0000**	**3,936.8537**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	7.1817	45.6257	22.5698	0.0394	18.2141	2.3913	20.6055	9.9699	2.2000	12.1699	0.0000	3,906.9666	3,906.9666	1.1955	0.0000	3,936.8537
2020	6.9048	21.4981	19.3394	0.0327	0.1981	1.2319	1.4300	0.0533	1.1650	1.2183	0.0000	3,127.8878	3,127.8878	0.6561	0.0000	3,144.2907
Maximum	**7.1817**	**45.6257**	**22.5698**	**0.0394**	**18.2141**	**2.3913**	**20.6055**	**9.9699**	**2.2000**	**12.1699**	**0.0000**	**3,906.9666**	**3,906.9666**	**1.1955**	**0.0000**	**3,936.8537**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	49.8771	0.9618	65.4566	0.1163		8.7391	8.7391		8.7391	8.7391	937.4036	290.9511	1,228.3546	1.1657	0.0662	1,277.2084
Energy	0.0395	0.3376	0.1437	2.1500e-003		0.0273	0.0273		0.0273	0.0273		430.9409	430.9409	8.2600e-003	7.9000e-003	433.5018
Mobile	0.6387	3.1642	7.6112	0.0244	2.1489	0.0231	2.1720	0.5750	0.0216	0.5966		2,466.1418	2,466.1418	0.0974		2,468.5755
Total	**50.5553**	**4.4635**	**73.2114**	**0.1429**	**2.1489**	**8.7894**	**10.9383**	**0.5750**	**8.7880**	**9.3630**	**937.4036**	**3,188.0337**	**4,125.4373**	**1.2713**	**0.0741**	**4,179.2856**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2774	0.6493	4.0609	4.0600e-003		0.0699	0.0699		0.0699	0.0699	0.0000	779.6334	779.6334	0.0214	0.0142	784.3913
Energy	0.0307	0.2623	0.1116	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9003	334.9003	6.4200e-003	6.1400e-003	336.8904
Mobile	0.6387	3.1642	7.6112	0.0244	2.1489	0.0231	2.1720	0.5750	0.0216	0.5966		2,466.1418	2,466.1418	0.0974		2,468.5755
Total	**2.9467**	**4.0758**	**11.7837**	**0.0301**	**2.1489**	**0.1142**	**2.2631**	**0.5750**	**0.1128**	**0.6877**	**0.0000**	**3,580.6755**	**3,580.6755**	**0.1252**	**0.0203**	**3,589.8572**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**94.17**	**8.69**	**83.90**	**78.91**	**0.00**	**98.70**	**79.31**	**0.00**	**98.72**	**92.65**	**100.00**	**-12.32**	**13.20**	**90.15**	**72.57**	**14.10**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/1/2019	7/2/2019	5	2	
2	Grading	Grading	7/3/2019	7/15/2019	5	9	
3	Building Construction	Building Construction	7/23/2019	7/22/2020	5	262	
4	Paving	Paving	7/16/2019	7/22/2019	5	5	
5	Architectural Coating	Architectural Coating	8/6/2019	8/5/2020	5	262	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.58

Acres of Paving: 0

Residential Indoor: 167,670; Residential Outdoor: 55,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading	Excavators	1	8.00	158	0.38
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	17.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0724	0.0530	0.5068	1.4100e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		140.5138	140.5138	3.8200e-003		140.6092
Total	**0.0724**	**0.0530**	**0.5068**	**1.4100e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**140.5138**	**140.5138**	**3.8200e-003**		**140.6092**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0724	0.0530	0.5068	1.4100e-003	0.1479	9.8000e-004	0.1488	0.0392	9.0000e-004	0.0401		140.5138	140.5138	3.8200e-003		140.6092
Total	**0.0724**	**0.0530**	**0.5068**	**1.4100e-003**	**0.1479**	**9.8000e-004**	**0.1488**	**0.0392**	**9.0000e-004**	**0.0401**		**140.5138**	**140.5138**	**3.8200e-003**		**140.6092**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4439	0.0000	6.4439	3.3558	0.0000	3.3558			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.4439**	**1.3974**	**7.8413**	**3.3558**	**1.2856**	**4.6414**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4439	0.0000	6.4439	3.3558	0.0000	3.3558			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.4439**	**1.3974**	**7.8413**	**3.3558**	**1.2856**	**4.6414**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0603	0.0442	0.4223	1.1800e-003	0.1232	8.2000e-004	0.1240	0.0327	7.5000e-004	0.0334		117.0948	117.0948	3.1800e-003		117.1743
Total	**0.0603**	**0.0442**	**0.4223**	**1.1800e-003**	**0.1232**	**8.2000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**117.0948**	**117.0948**	**3.1800e-003**		**117.1743**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.6329	0.1741	1.3500e-003	0.0338	4.3900e-003	0.0382	9.7400e-003	4.2000e-003	0.0139		143.1260	143.1260	8.4100e-003		143.3362
Worker	0.0684	0.0501	0.4786	1.3300e-003	0.1397	9.2000e-004	0.1406	0.0370	8.5000e-004	0.0379		132.7074	132.7074	3.6000e-003		132.7975
Total	**0.0927**	**0.6830**	**0.6527**	**2.6800e-003**	**0.1735**	**5.3100e-003**	**0.1788**	**0.0468**	**5.0500e-003**	**0.0518**		**275.8334**	**275.8334**	**0.0120**		**276.1337**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0243	0.6329	0.1741	1.3500e-003	0.0338	4.3900e-003	0.0382	9.7400e-003	4.2000e-003	0.0139		143.1260	143.1260	8.4100e-003		143.3362
Worker	0.0684	0.0501	0.4786	1.3300e-003	0.1397	9.2000e-004	0.1406	0.0370	8.5000e-004	0.0379		132.7074	132.7074	3.6000e-003		132.7975
Total	**0.0927**	**0.6830**	**0.6527**	**2.6800e-003**	**0.1735**	**5.3100e-003**	**0.1788**	**0.0468**	**5.0500e-003**	**0.0518**		**275.8334**	**275.8334**	**0.0120**		**276.1337**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0200	0.5762	0.1555	1.3400e-003	0.0338	2.8400e-003	0.0367	9.7400e-003	2.7200e-003	0.0125		142.1636	142.1636	7.7700e-003		142.3579
Worker	0.0625	0.0442	0.4284	1.2900e-003	0.1397	9.0000e-004	0.1406	0.0370	8.3000e-004	0.0379		128.5311	128.5311	3.1400e-003		128.6097
Total	**0.0825**	**0.6204**	**0.5839**	**2.6300e-003**	**0.1735**	**3.7400e-003**	**0.1772**	**0.0468**	**3.5500e-003**	**0.0503**		**270.6947**	**270.6947**	**0.0109**		**270.9676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0200	0.5762	0.1555	1.3400e-003	0.0338	2.8400e-003	0.0367	9.7400e-003	2.7200e-003	0.0125		142.1636	142.1636	7.7700e-003		142.3579
Worker	0.0625	0.0442	0.4284	1.2900e-003	0.1397	9.0000e-004	0.1406	0.0370	8.3000e-004	0.0379		128.5311	128.5311	3.1400e-003		128.6097
Total	**0.0825**	**0.6204**	**0.5839**	**2.6300e-003**	**0.1735**	**3.7400e-003**	**0.1772**	**0.0468**	**3.5500e-003**	**0.0503**		**270.6947**	**270.6947**	**0.0109**		**270.9676**

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637		1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2679**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**		**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0804	0.0589	0.5631	1.5700e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		156.1264	156.1264	4.2400e-003		156.2324
Total	**0.0804**	**0.0589**	**0.5631**	**1.5700e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**156.1264**	**156.1264**	**4.2400e-003**		**156.2324**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637	0.0000	1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2679**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**	**0.0000**	**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0804	0.0589	0.5631	1.5700e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		156.1264	156.1264	4.2400e-003		156.2324
Total	**0.0804**	**0.0589**	**0.5631**	**1.5700e-003**	**0.1643**	**1.0900e-003**	**0.1654**	**0.0436**	**1.0000e-003**	**0.0446**		**156.1264**	**156.1264**	**4.2400e-003**		**156.2324**

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**4.7158**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0121	8.8300e-003	0.0845	2.4000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		23.4190	23.4190	6.4000e-004		23.4349
Total	**0.0121**	**8.8300e-003**	**0.0845**	**2.4000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**23.4190**	**23.4190**	**6.4000e-004**		**23.4349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**4.7158**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.6 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0121	8.8300e-003	0.0845	2.4000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6900e-003		23.4190	23.4190	6.4000e-004		23.4349
Total	**0.0121**	**8.8300e-003**	**0.0845**	**2.4000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6900e-003**		**23.4190**	**23.4190**	**6.4000e-004**		**23.4349**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**4.6915**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0110	7.8000e-003	0.0756	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.6820	22.6820	5.5000e-004		22.6958
Total	**0.0110**	**7.8000e-003**	**0.0756**	**2.3000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**22.6820**	**22.6820**	**5.5000e-004**		**22.6958**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4493					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**4.6915**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0110	7.8000e-003	0.0756	2.3000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.6820	22.6820	5.5000e-004		22.6958
Total	**0.0110**	**7.8000e-003**	**0.0756**	**2.3000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**22.6820**	**22.6820**	**5.5000e-004**		**22.6958**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6387	3.1642	7.6112	0.0244	2.1489	0.0231	2.1720	0.5750	0.0216	0.5966		2,466.1418	2,466.1418	0.0974		2,468.5755
Unmitigated	0.6387	3.1642	7.6112	0.0244	2.1489	0.0231	2.1720	0.5750	0.0216	0.5966		2,466.1418	2,466.1418	0.0974		2,468.5755

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	437.92	437.92	437.92	1,011,423	1,011,423
Total	437.92	437.92	437.92	1,011,423	1,011,423

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0307	0.2623	0.1116	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9003	334.9003	6.4200e-003	6.1400e-003	336.8904
NaturalGas Unmitigated	0.0395	0.3376	0.1437	2.1500e-003		0.0273	0.0273		0.0273	0.0273		430.9409	430.9409	8.2600e-003	7.9000e-003	433.5018

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	3663	0.0395	0.3376	0.1437	2.1500e-003		0.0273	0.0273		0.0273	0.0273		430.9409	430.9409	8.2600e-003	7.9000e-003	433.5018
Total		**0.0395**	**0.3376**	**0.1437**	**2.1500e-003**		**0.0273**	**0.0273**		**0.0273**	**0.0273**		**430.9409**	**430.9409**	**8.2600e-003**	**7.9000e-003**	**433.5018**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	2.84665	0.0307	0.2623	0.1116	1.6700e-003		0.0212	0.0212		0.0212	0.0212		334.9003	334.9003	6.4200e-003	6.1400e-003	336.8904
Total		**0.0307**	**0.2623**	**0.1116**	**1.6700e-003**		**0.0212**	**0.0212**		**0.0212**	**0.0212**		**334.9003**	**334.9003**	**6.4200e-003**	**6.1400e-003**	**336.8904**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2774	0.6493	4.0609	4.0600e-003		0.0699	0.0699		0.0699	0.0699	0.0000	779.6334	779.6334	0.0214	0.0142	784.3913
Unmitigated	49.8771	0.9618	65.4566	0.1163		8.7391	8.7391		8.7391	8.7391	937.4036	290.9511	1,228.3546	1.1657	0.0662	1,277.2084

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3194					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7719					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	47.6706	0.9179	61.6533	0.1161		8.7181	8.7181		8.7181	8.7181	937.4036	284.1177	1,221.5212	1.1591	0.0662	1,270.2094
Landscaping	0.1152	0.0439	3.8033	2.0000e-004		0.0210	0.0210		0.0210	0.0210		6.8334	6.8334	6.6200e-003		6.9990
Total	**49.8771**	**0.9618**	**65.4566**	**0.1163**		**8.7390**	**8.7390**		**8.7390**	**8.7390**	**937.4036**	**290.9511**	**1,228.3546**	**1.1657**	**0.0662**	**1,277.2084**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3194					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.7719					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0708	0.6054	0.2576	3.8600e-003		0.0489	0.0489		0.0489	0.0489	0.0000	772.8000	772.8000	0.0148	0.0142	777.3924
Landscaping	0.1152	0.0439	3.8033	2.0000e-004		0.0210	0.0210		0.0210	0.0210		6.8334	6.8334	6.6200e-003		6.9990
Total	**2.2774**	**0.6493**	**4.0609**	**4.0600e-003**		**0.0699**	**0.0699**		**0.0699**	**0.0699**	**0.0000**	**779.6334**	**779.6334**	**0.0214**	**0.0142**	**784.3913**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Andalusia

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	2	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	11	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	3.30100E-002	2.28610E-001	2.40440E-001	3.90000E-004	1.54800E-002	1.54800E-002	0.00000E+000	3.34476E+001	3.34476E+001	2.68000E-003	0.00000E+000	3.35148E+001
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Cranes	5.45400E-002	6.49240E-001	2.51490E-001	6.60000E-004	2.71200E-002	2.49500E-002	0.00000E+000	5.86782E+001	5.86782E+001	1.87900E-002	0.00000E+000	5.91480E+001
Excavators	1.17000E-003	1.20700E-002	1.46800E-002	2.00000E-005	5.80000E-004	5.40000E-004	0.00000E+000	2.08658E+000	2.08658E+000	6.60000E-004	0.00000E+000	2.10309E+000
Forklifts	5.93700E-002	5.32680E-001	4.66270E-001	6.00000E-004	4.04200E-002	3.71900E-002	0.00000E+000	5.32957E+001	5.32957E+001	1.70700E-002	0.00000E+000	5.37225E+001
Generator Sets	5.48800E-002	4.73060E-001	4.86440E-001	8.60000E-004	2.74200E-002	2.74200E-002	0.00000E+000	7.40422E+001	7.40422E+001	4.40000E-003	0.00000E+000	7.41522E+001
Graders	2.19000E-003	2.96100E-002	8.27000E-003	3.00000E-005	9.50000E-004	8.70000E-004	0.00000E+000	2.68465E+000	2.68465E+000	8.50000E-004	0.00000E+000	2.70589E+000
Pavers	7.20000E-004	7.81000E-003	7.25000E-003	1.00000E-005	3.80000E-004	3.50000E-004	0.00000E+000	1.05573E+000	1.05573E+000	3.30000E-004	0.00000E+000	1.06408E+000
Paving Equipment	8.00000E-004	8.46000E-003	9.46000E-003	2.00000E-005	4.20000E-004	3.90000E-004	0.00000E+000	1.37207E+000	1.37207E+000	4.30000E-004	0.00000E+000	1.38292E+000
Rollers	8.50000E-004	8.40000E-003	7.15000E-003	1.00000E-005	5.50000E-004	5.10000E-004	0.00000E+000	8.83430E-001	8.83430E-001	2.80000E-004	0.00000E+000	8.90420E-001
Rubber Tired Dozers	8.51000E-003	9.05600E-002	3.21300E-002	6.00000E-005	4.42000E-003	4.06000E-003	0.00000E+000	5.75220E+000	5.75220E+000	1.82000E-003	0.00000E+000	5.79770E+000
Tractors/Loaders/ Backhoes	8.02500E-002	8.06010E-001	8.33480E-001	1.13000E-003	5.23900E-002	4.82000E-002	0.00000E+000	1.00343E+002	1.00343E+002	3.21100E-002	0.00000E+000	1.01146E+002
Welders	4.73100E-002	2.08910E-001	2.33810E-001	3.30000E-004	1.21200E-002	1.21200E-002	0.00000E+000	2.46569E+001	2.46569E+001	3.86000E-003	0.00000E+000	2.47533E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	3.30100E-002	2.28610E-001	2.40440E-001	3.90000E-004	1.54800E-002	1.54800E-002	0.00000E+000	3.34476E+001	3.34476E+001	2.68000E-003	0.00000E+000	3.35147E+001
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Cranes	5.45400E-002	6.49240E-001	2.51490E-001	6.60000E-004	2.71200E-002	2.49500E-002	0.00000E+000	5.86781E+001	5.86781E+001	1.87900E-002	0.00000E+000	5.91479E+001
Excavators	1.17000E-003	1.20700E-002	1.46800E-002	2.00000E-005	5.80000E-004	5.40000E-004	0.00000E+000	2.08658E+000	2.08658E+000	6.60000E-004	0.00000E+000	2.10309E+000
Forklifts	5.93700E-002	5.32680E-001	4.66270E-001	6.00000E-004	4.04200E-002	3.71900E-002	0.00000E+000	5.32957E+001	5.32957E+001	1.70700E-002	0.00000E+000	5.37224E+001
Generator Sets	5.48800E-002	4.73060E-001	4.86440E-001	8.60000E-004	2.74200E-002	2.74200E-002	0.00000E+000	7.40421E+001	7.40421E+001	4.40000E-003	0.00000E+000	7.41521E+001
Graders	2.19000E-003	2.96100E-002	8.27000E-003	3.00000E-005	9.50000E-004	8.70000E-004	0.00000E+000	2.68465E+000	2.68465E+000	8.50000E-004	0.00000E+000	2.70588E+000
Pavers	7.20000E-004	7.81000E-003	7.25000E-003	1.00000E-005	3.80000E-004	3.50000E-004	0.00000E+000	1.05573E+000	1.05573E+000	3.30000E-004	0.00000E+000	1.06408E+000
Paving Equipment	8.00000E-004	8.46000E-003	9.46000E-003	2.00000E-005	4.20000E-004	3.90000E-004	0.00000E+000	1.37207E+000	1.37207E+000	4.30000E-004	0.00000E+000	1.38292E+000
Rollers	8.50000E-004	8.40000E-003	7.15000E-003	1.00000E-005	5.50000E-004	5.10000E-004	0.00000E+000	8.83430E-001	8.83430E-001	2.80000E-004	0.00000E+000	8.90420E-001
Rubber Tired Dozers	8.51000E-003	9.05600E-002	3.21300E-002	6.00000E-005	4.42000E-003	4.06000E-003	0.00000E+000	5.75219E+000	5.75219E+000	1.82000E-003	0.00000E+000	5.79769E+000
Tractors/Loaders/Backhoes	8.02500E-002	8.06010E-001	8.33480E-001	1.13000E-003	5.23900E-002	4.82000E-002	0.00000E+000	1.00343E+002	1.00343E+002	3.21100E-002	0.00000E+000	1.01145E+002
Welders	4.73100E-002	2.08910E-001	2.33810E-001	3.30000E-004	1.21200E-002	1.21200E-002	0.00000E+000	2.46569E+001	2.46569E+001	3.86000E-003	0.00000E+000	2.47533E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19590E-006	1.19590E-006	0.00000E+000	0.00000E+000	1.19350E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19295E-006	1.19295E-006	0.00000E+000	0.00000E+000	1.18347E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12579E-006	1.12579E-006	0.00000E+000	0.00000E+000	1.11685E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21552E-006	1.21552E-006	0.00000E+000	0.00000E+000	1.07886E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.69564E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.73847E-006	1.73847E-006	0.00000E+000	0.00000E+000	1.72482E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.19590E-006	1.19590E-006	0.00000E+000	0.00000E+000	1.18641E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21670E-006	1.21670E-006	0.00000E+000	0.00000E+000	1.21196E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			
No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.02	0.01	0.02	0.01	0.00	0.00
Grading	Fugitive Dust	0.03	0.02	0.03	0.02	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.02	0.01	0.02	0.01	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	1.01	1.02	0.99	1.01
Hearth	99.86	43.27	99.64	97.53	99.53	99.53	100.00	-172.00	46.38	99.37	78.79	48.71
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	22.33	22.29	22.31	20.51	22.29	22.29	0.00	22.29	22.29	22.63	22.14	22.29
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	14.21	15.60	19.98	19.83	17.53
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Exceed Title 24	25.00	
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy	0.00	0.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
Yes	Install low-flow bathroom faucet	32.00	
Yes	Install low-flow Kitchen faucet	18.00	
Yes	Install low-flow Toilet	20.00	
Yes	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value

Institute Recycling and Composting Services Percent Reduction in Waste Disposed	